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Public Utilities

FORTNIGHTLY

Volume 53 No. 4 February 18, 1954

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Public Utilities Fortnightly . . stands for federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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Public Utilities
FORTNIGHTLY

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Articles

Feature Sections

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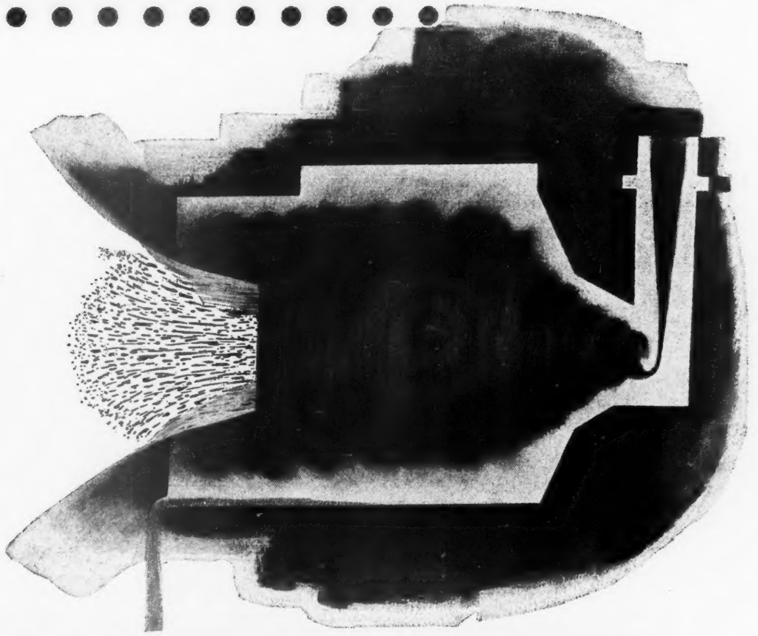
solution



THE CYCLONE FURNACE

Power-plant operators have been plagued for years by the expense and nuisance caused by fly ash and the community relations problems involved in its disposal. They have spent millions to keep fly-ash from reaching the atmosphere and, yearly, spend many additional millions in handling thousands of tons of troublesome, dusty fly-ash and paying for its removal.

Today, the Cyclone Furnace completely solves this major problem:

1. Most of the ash produced by burning the coal is changed to molten slag in the Cyclone Furnace. This slag is easy to handle, has many uses, and often can be sold, representing an asset rather than a liability. Because there is so little ash in the gas leaving a Cyclone-Furnace-fired boiler, it is often possible to eliminate precipitators. Where precipitators are used, they can be greatly simplified, because the designer can think in terms of pounds—instead of tons—of ash per hour.

2. Where local conditions may require use of precipitators in conjunction with the Cyclone Furnace, there is no need for handling the fly-ash collected. It can, with simple equipment, be blown back into the Cyclone Furnace to be melted down into slag.

Through this one feature alone—by completely solving the fly ash problem—the Cyclone Furnace greatly improves plant operations. But many other advantages, such as increased availability through elimination of outage-causing equipment, simplified operation through use of crushed coal, reduced cost of upkeep, and higher thermal efficiency, also are obtained with Cyclone Furnaces.

Many B&W Cyclone-Furnace-fired boilers are in operation, in various parts of the country, burning many different kinds of coal. The operating requirements and the design conditions for these boilers include most of the variations that can be expected in utility practice. We will be pleased to discuss with you the many ways in which Cyclone Furnace firing can be of benefit to you.

CYCLONE FURNACE BOILER UNITS IN OPERATION

Owner & Station	*Number of Boilers*	*Kilowatt Rating*
COMMONWEALTH EDISON		
Calumet	1	18,000
Fisk	2	150,000
Ridgeland	4	300,000
PUBLIC SERVICE CO. OF NORTHERN ILLINOIS		
Waukegan	1	40,000
Waukegan	1	110,000
Joliet	2	107,000
NORTHERN INDIANA PUBLIC SERVICE CO.		
Michigan City	3	105,000
DOW CHEMICAL CO.		
West Side Plant	1	30,000
South Side Plant	2	60,000
WISCONSIN POWER & LIGHT		
Sheboygan	1	60,000
BABCOCK & WILCOX		
Barberton	1	—
JERSEY CENTRAL POWER & LIGHT		
South Amboy	1	62,500
TOTAL UNITS IN OPERATION	20	1,042,500

BABCOCK & WILCOX

BOILER DIVISION

G-

Pages with the Editors

HERBERT H. JACOBS

REGULATORY lag has progressed from the status of a severe headache to an actual nightmare for public utility management since the postwar inflation made necessary repeated applications for rate increases. Stated simply, regulatory lag is the period between the time a petition for a rate increase is filed and the time when rate relief is actually granted.

THE problem of regulatory lag is essentially the problem of the Red Queen in *Alice in Wonderland*—running like mad simply to stay in the same relative position, and not lose any more ground. As operating expenses and taxes continue to rise, it often happens that by the time an actual rate increase becomes effective, on the basis of an original application, there is a further deficiency of earnings requiring an additional rate increase. And, assuming that the original application was filed on the basis of a then existing deficiency of earnings (below a reasonable return), it follows that the utility must continue to operate under a deficiency of earnings until the supplementary application can be acted upon. And so on and on, with the company owners always behind in the race to bring earnings up to a level of reasonableness.

THE difficulty of the problem of regulatory lag is the fact that its solution presents a dilemma for the regulatory commissions. If, for example, management attempts to anticipate the period of the lag by filing for a rate increase some months in advance of actual need, the criticism is made that the utility is not prepared to prove its case at the time it is filed, and that it is speculating on future trends, which may or may not perform according to expectations. Admittedly, this is a difficult position for management to maintain.

G. M. BLACKSTOCK

THE other horn of the dilemma is presented when management attempts to do nothing about the loss of required revenues during the expected period of procedural delay in rate cases. Such losses then become irretrievable under the well-settled principle that past deficits cannot be recouped or capitalized, and that the reasonable rate fixed by the commission must be based on conditions obtaining at the time of supporting findings.

SINCE utility rates are always fixed for the future, and not for the past, the old doctrine of "water over the dam" becomes applicable. If this process of lost earnings through delay goes on long enough, the owner's equity can deteriorate as the plant wears out over a period when proper earnings are not returned. Losses thus due to what is called "attrition" are

like the proverbial snows of yesteryear—gone beyond recall.

THE leading article in this issue represents an entirely new approach to the problem of regulatory lag. It is based on the premise that the public is not entitled to an unfairly low rate on "borrowed time." The author believes that the public should pay for this use of capital just as it pays for any other dedication of capital investment made for its service by a utility company. The fact that recognition of so-called "transitional loss" has actually been worked out in a rate case, decided by a regulatory commission, lends authority and interest to the proposed solution.

G. M. BLACKSTOCK, QC, author of this article on transitional loss, was chairman of the Board of Public Utility Commissioners of the Province of Alberta during the long period between 1939 and 1953. He is now engaged in private practice, as well as teaching at the Banff School of Fine Arts, which is an extension department of the University of Alberta. MR. BLACKSTOCK was born in Glasgow, Scotland, and educated in the public schools of that city and of Edinburgh. After legal education at Glasgow University, he qualified for admission as a solicitor. He came to Canada in 1912 and was admitted as a barrister to practice in Medicine Hat, where he served as an agent for the attorney general (equivalent to our district attorney). He was appointed King's Counsel in 1928.

* * * *

HERBERT H. JACOBS, whose article on a utility management workshop for the special training of executives begins on page 208, is associate director of the Utility Management Workshop of Columbia University. Educated at Cornell and Columbia universities, he also teaches in the latter university's engineering department and is engaged in industrial organization work with Dunlap and Associates.

* * * *

JANE ESHLEMAN CONANT, of the editorial staff of the San Francisco *Call-Bulletin*, gives us a thoughtful contemporaneous picture of the problems involved

JANE ESHLEMAN CONANT

in keeping up with the dynamic growth of California, as far as public utility service is concerned. A graduate of the University of California, she is the daughter of the late California Lieutenant Governor John M. Eshleman, who was at one time president of the California regulatory commission, now known as the public utilities commission.

* * * *

WHAT do employees think about the company, their pay checks, supervision, promotions? The secret opinion poll, taken by an outside agency, discloses valuable management facts (beginning on page 225). JAMES H. COLLINS, professional writer of Hollywood, California, tells the story of a checking operation of the popularity of a utility company's management with its employees. It contains some surprises, but on the whole the results were reassuring.

* * * *

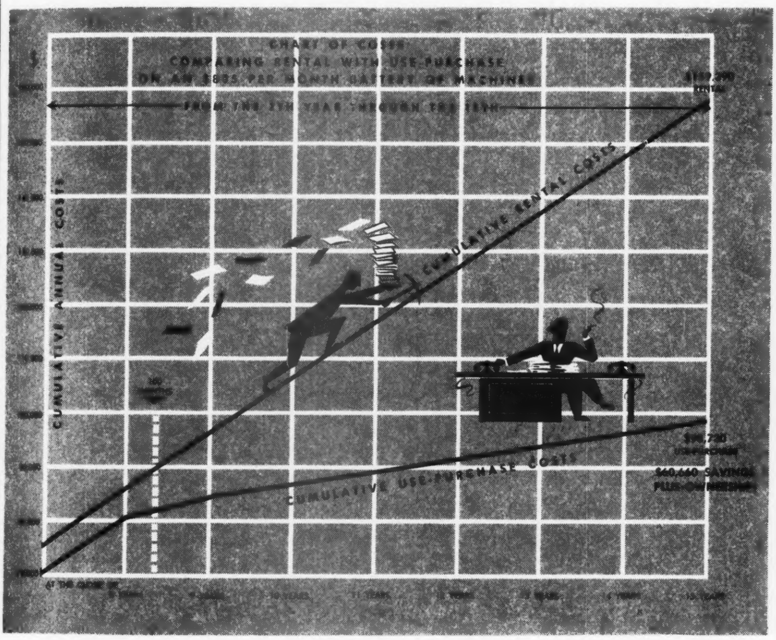
AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

THE Montana commission ignores the costs relating to the sale of gas appliances, as well as income from such sales, in determining natural gas rates. (See page 97.)

THE next number of this magazine will be out March 4th.

The Editors

OWN your own punched-card equipment and SAVE



Remington Rand punched-card equipment may be rented, purchased outright, or acquired – *at a cost less than rental* – through an easy Use-Purchase plan that builds up your equity with each monthly payment. The chart above shows how, after 100 monthly payments, you save 79.4% each year under this plan. And ownership means you have price stabilization.

Also, ask your local representative about the money-saving procedures which are possible with modern Remington Rand equipment. They are the results of over forty years experience in this field.

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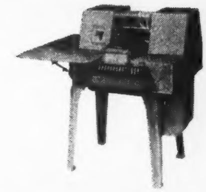
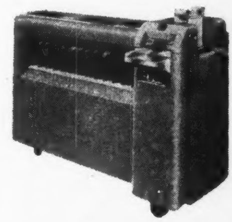
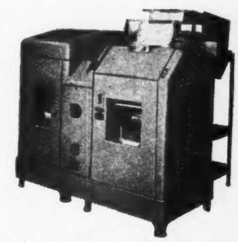


The Alphabetical Punch

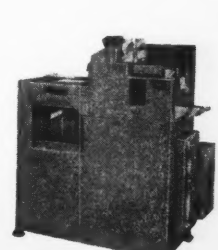


The Electronic Sorter



The Alphabetical Tabulator with Summary Punch

The Calculating Punch



The High-Speed Collator

Remington Rand PUNCHED CARD METHODS

Coming IN THE NEXT ISSUE

★

CAPITAL COST AND FAIR RETURN. PART I.

This is the introductory article to a series of three penetrating discussions of the controversial cost-of-capital concept in determining the fair rate of return in fixing utility rates. Dr. J. Rhoads Foster, noted utility economist and rate analyst, has probed to the very heart of the cost-of-capital concept, showing how the criticisms and difficulties which have arisen in the wake of certain Federal Power Commission gas rate decisions and other cases, go to the method rather than the use of the cost-of-capital factor in determining the return allowance. He shows how cost has different meanings for different purposes—accounting, engineering, financing, etc. He notes the limited validity of the capital attraction standard and relates the entire discussion to the fundamental purpose of public utility rate regulation. In his forthcoming instalments, Dr. Foster will demonstrate the proper purpose and application of the cost-of-capital concept in fixing the return.

PUTTING HUMAN RELATIONS RESEARCH TO WORK

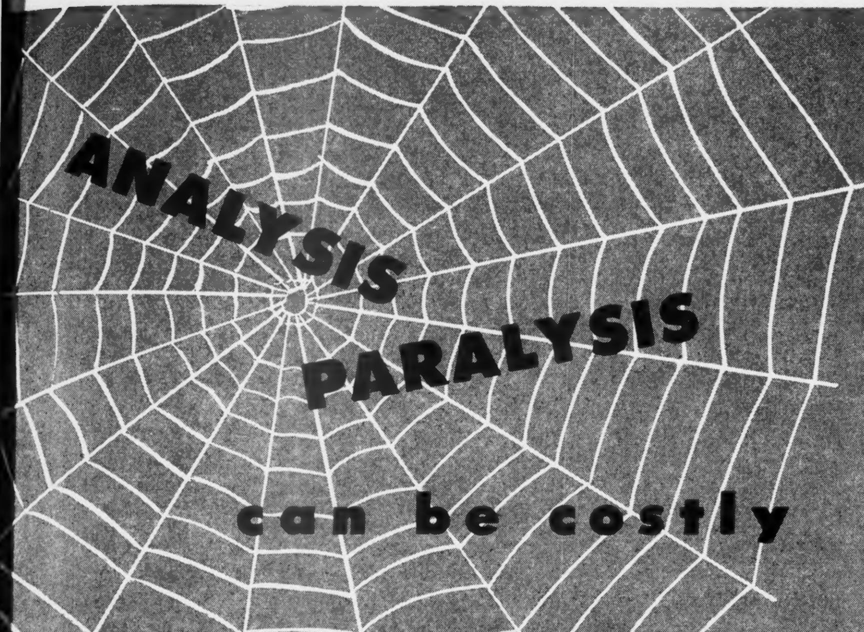
This article demonstrates the value of utility company practice in developing and improving employee relations. It was written by Robert E. Schwab, assistant manager of employee relations of The Detroit Edison Company. He describes a human relations research project which his company has been carrying on in collaboration with the University of Michigan. The purpose is to find out what the employees think of their jobs, superiors, and working conditions, and how they evaluate such things.

MRS. TELEPHONE

There is only one exchange manager in the entire broad service area served by the Mountain States Telephone & Telegraph Company who is a woman. The name of this lady with the unique occupation is Mrs. Madge Ulrich of the Glendale, Arizona, telephone branch office. It is a warm, human interest and success story which Henry F. Unger, professional writer of Phoenix, Arizona, tells about the lady exchange manager, who rose from the post of relief operator in 1927 on the basis of merit and achievement, gladly recognized by her superiors.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



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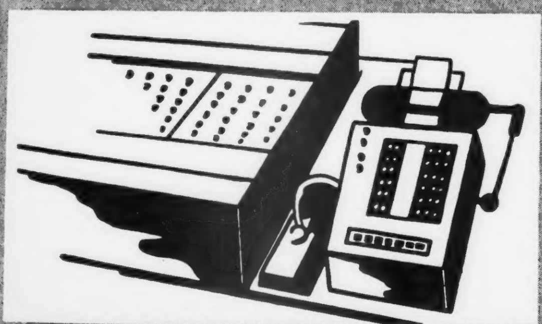

*R & S Bill Frequency Analyzer (exclusive with us) can easily analyze 200,000 bills a day *automatically*. We can also handle analyses for you if you use a punched card billing system.

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Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

CLARENCE MANION
Chairman, Commission on Intergovernmental Relations.

"The history of liberty is the history of government limitations."

LEONARD E. READ
President, Foundation for Economic Education.

"If enough of us understand and can explain the situation we can reverse the trend toward Socialism—if not, the show is over."

RICHARD D. GRANT
Public relations counselor.

"Public relations is not publicity and it isn't propaganda. It co-ordinates truth with understanding in such a way as to bring about public approval of an objective course."

CLARENCE B. RANDALL
President, Inland Steel Company.

"The rather grim fact is that the American businessman is no longer the natural leader in his community. Like every other citizen, he should stand up and be counted."

WILLIAM RANDOLPH HEARST
Late publisher.

"How can industry expand and employ when it is hampered and hamstrung by government policies of interference which would be ridiculous if they were not so disastrous?"

FREDERIC R. COUDERT
Member, New York city law firm, Coudert Bros.

"There is no chance of ending the 'chronic insolvency' of the federal government until Congress reasserts effective control of federal spending as a first step toward tax reduction."

W. C. MULLENDORE
President, Southern California Edison Company.

" . . . the growth of demand for electric energy reflects, more completely than probably that of any other business or service, the growth of economic and business activity and the scale of living."

WILLIAM E. JENNER
U. S. Senator from Indiana.

"We have a Secretary of the Interior who knows that so-called 'public power' was really the build-up of a vast political machine designed to give the government a monopoly of industrial capital and return the Socialists regularly to office."

EDITORIAL STATEMENT
The Wall Street Journal.

"The American business world has learned something about economic cause and effect. It may be like the first-year medical student who fancies he has all the symptoms to which he is being introduced. In time he learns the correct use of the knowledge that he gains."

CLIFFORD F. HOOD
President, United States Steel Corporation.

"If the local communities do not meet their responsibilities, surely the federal and state governments will step in, to a greater degree than they ever have. That would bring more centralized, remote-control governing of our cities and counties than we have ever known or ever desired."

WILLIAM HOLZHAUER
President, Merchants and Manufacturers Association of California.

"Reaffirmation of the rights of the several states to act in labor disputes is most necessary to combat the threat of pre-emption of the entire field by the national government, as indicated by the latest court decisions."

WHITLEY P. MCCOY
Director, Federal Mediation and Conciliation Service.

"The federal government is doing too much, that it is costing the taxpayers too much money, that some decentralization is in order, that certain functions of government should be turned back to the states and localities. Until the states undertake the job, the federal government will still have to do it."

EDWARD T. MCCORMICK
President, American Stock Exchange.

"Probably the greatest internal danger to the economic growth of this country at the present time is the accelerated trend of the past twenty years toward government-guaranteed security—an ever-magnified reliance by individual citizens upon the government—an attitude of dependence rather than independence."

GEORGE W. ANDERSON
Executive vice president, American Transit Association.

"The streets of our cities were built for the purpose of transporting people and merchandise and were never intended as parking areas for private automobiles. Only when laws are properly enforced, and new laws created, to discourage the use of private automobiles downtown, will we begin to solve the traffic congestion problem."

Excerpt from resolution, National Association of Manufacturers.

"The govenment's ability to subsidize is derived solely from its power to levy taxes and borrow money. The cost of the maze of federal subsidies already in existence adds measurably to the fantastically high level of current governmental expenditures, and it is essential that this cancerous-like growth be removed from the economy at the earliest possible moment."

DONALD R. RICHBERG
Attorney.

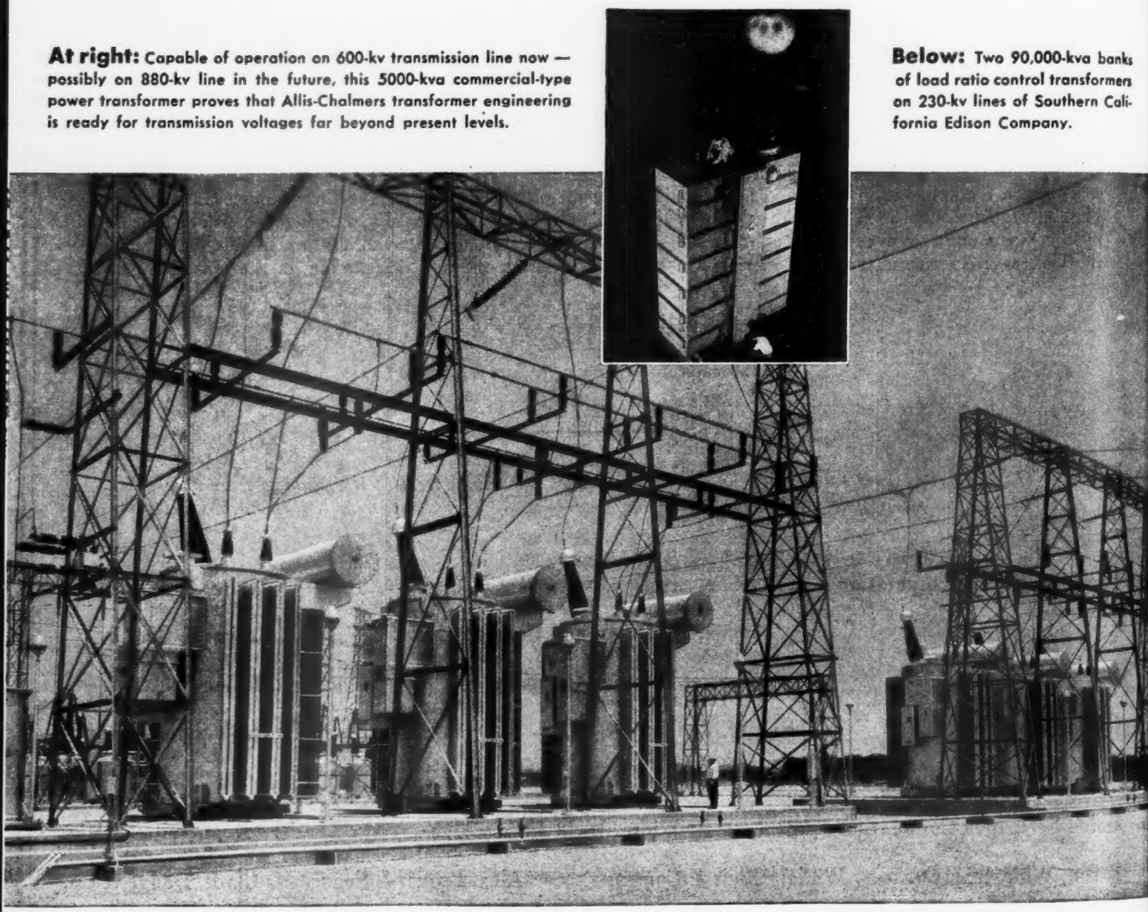
"The future manager of business should be ready, willing, and able to fight for his right to the power which he should swear to himself he will not abuse. He has but one choice in the future. He must be a ruler of free enterprise in a land of free men, or he will be a slave of political rulers in a land of tyranny. In that choice lies the future of business management, and within it lies the destiny of America."

BERNARD M. BARUCH
Statesman.

"There would be no problem in teaching our students about Communism, about Buddhism, or about any other subject if the students had learned how to think, how to organize all the many aspects of a problem so it could be seen in the whole and free of both bitterness and wishful thinking, how not to fall victim to labels which had one meaning many years ago and cannot possibly mean the same thing today."

SHERMAN ADAMS
Assistant to President Eisenhower.

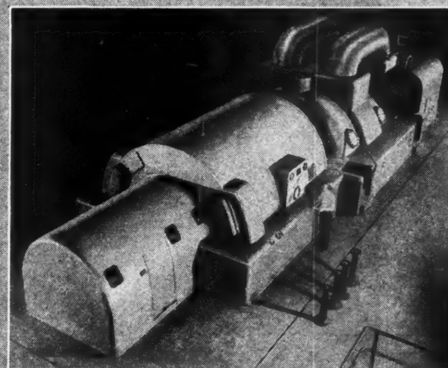
"The states which are jealous of the powers exercised by a growing federalism, should exercise more of those that they still have. I yield to no one in my belief in the orderly decentralization of some of the activities of our federal government. Yet, I get weary sometimes at the static states' righters who . . . want all this usurped power returned and yet are the first to complain when a federal subsidy is reduced or a pet project is discontinued."



in Power Equipment

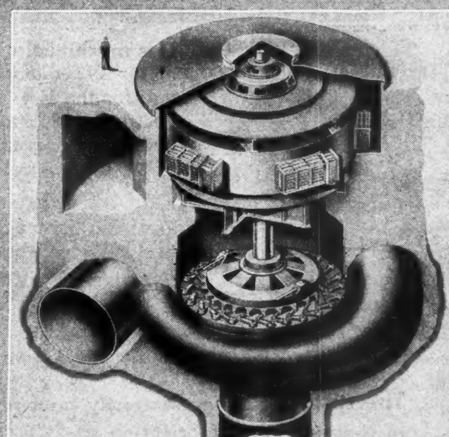
First *Supercharged* Generators

By cutting generator size, supercharged hydrogen cooling permits smaller plant size, lower foundation and crane costs, and smaller breaker and bus structures; now, maximum turbine-generator unit ratings are not limited by mechanical design. A-C turbine generators built for direct rotor conductor cooling have proved themselves in commercial service. The first of these — the world's first supercharged unit — has established a 99.89% availability record during its two full calendar years of operation. And A-C is building a fully supercharged generator affording further economic advantages.



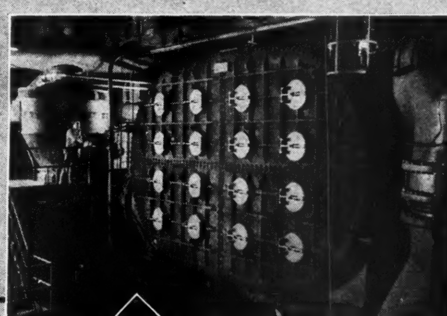
Reversible Pump-Turbine Units

Pioneered by Allis-Chalmers, reversible pump-turbines can solve some troublesome peak load problems. They do this by reducing the amount of equipment formerly needed for pumped storage operation; the single unit operates alternately as a turbine-generator and as a motor-driven pump. One 20,000-hp pump-turbine is now in operation, and four others are in production, with turbine ratings ranging from 12,650 to 120,000 hp. The latter will combine the world's largest motor, with a rating of 102,000 hp, and the largest Francis turbine ever built.



Multi-Steam-Path Condensers

Allis-Chalmers is supplying six 100,000 sq ft surface condensers for the 2,200,000 kw of added private utility capacity being provided for AEC's Ohio diffusion plant. A-C multi-steam-path condensers have consistently helped to cut power costs. With 60 years of experience building over 13,000,000 sq ft of condenser capacity, A-C has the proven engineering and manufacturing facilities to build the largest condensers that might be required.



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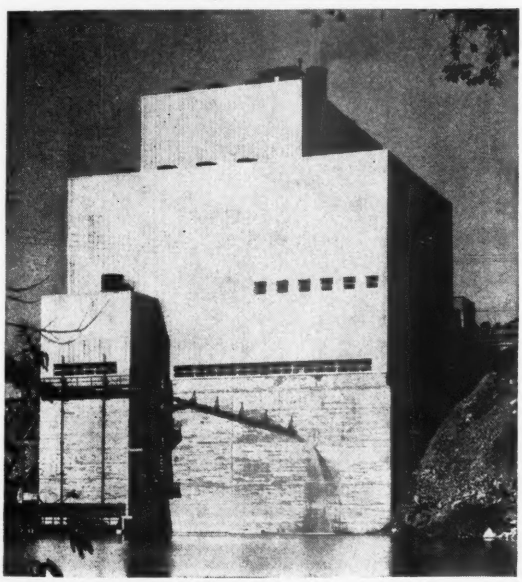
For more information, contact your nearby A-C representative, or write Allis-Chalmers, Milwaukee 1, Wisconsin.

PERFECT FOR POWERHOUSES

Q-PANELS

Northern Virginia Power Co., Riverton, Va.
Designed and built by Sanderson & Porter, Inc. Chapman, Evans & Delahanty, Associate Architects.



Every feature of a Q-Panel is a desirable feature for powerhouse construction . . . which explains why Q-Panels have captured the powerhouse market.

Q-Panels go up fast—50 sq. ft. in 9 minutes. A small crew quickly attaches the panel to the steel framework. Little blocks don't pile up fast. *It's much quicker to hang a wall than to pile it up.*

Q-Panels provide a maintenance-free exterior; they are available in a variety of materials for exterior finishes, depending on their availability at time of ordering.

A Q-Panel is an insulated metal sandwich, only 3″ thick but with insulation value greater than a 12″ masonry wall.

The striking fluted surface of Q-Panels is now a familiar sight on powerhouses from coast to coast.

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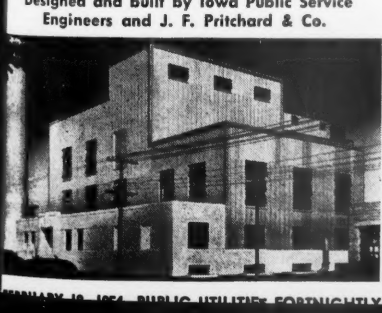
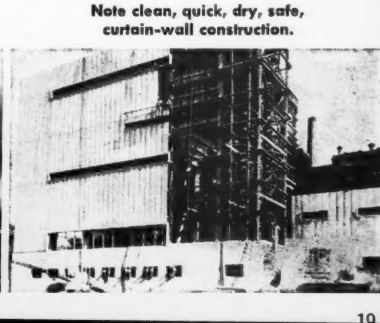


Tennessee Valley Authority Watauga Project
Elizabethton, Tenn.

Note clean, quick, dry, safe, curtain-wall construction.



Is communication really *working*

AUTOMATIC ELECTRIC

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Lenkurt Carrier Telephone and Telegraph Systems

Lenkurt Microwave Radio Communications Equipment

for you?

Are you getting *all* the economies, *all* the operating efficiency, that modern communication facilities can give you?

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Ask him about P-A-X Business Telephone Systems—the modern *automatic* telephone systems now owned and used by 70 of the leading power companies in the country. Ask him about "carrier" and about "microwave" radio—the economical ways to extend communication channels *where* you need them, *when* you need them, without costly wire-line construction. . . . Ask him to tell you about Automatic Electric Company.

Communications men throughout the power industry know Automatic Electric as the makers of P-A-X Business Telephone Systems. With P-A-X, many power companies are discovering efficiency unimagined before—simply by separating their load of "inside" telephone calls from their volume of outside calls—by handling all "internal" communication over a separate system of P-A-X automatic telephones! And when P-A-X Systems are connected by microwave and carrier channels to link stations along the line, these same efficiencies are increased many times!

Originator of the automatic dial telephone system, Automatic Electric has a background of sixty years' experience in communication. Here is an organization of *communication specialists,* ready to work with your organization—to make communication *work* for you, as it is doing for many others!

Your communications officials probably know the Automatic Electric representative; or just call us at HAymarket 1-4300 in Chicago.

Widespread operations of a leading oil company are knit together by a P-A-X Business Telephone System. Write for your copy of the illustrated 12-page result story.

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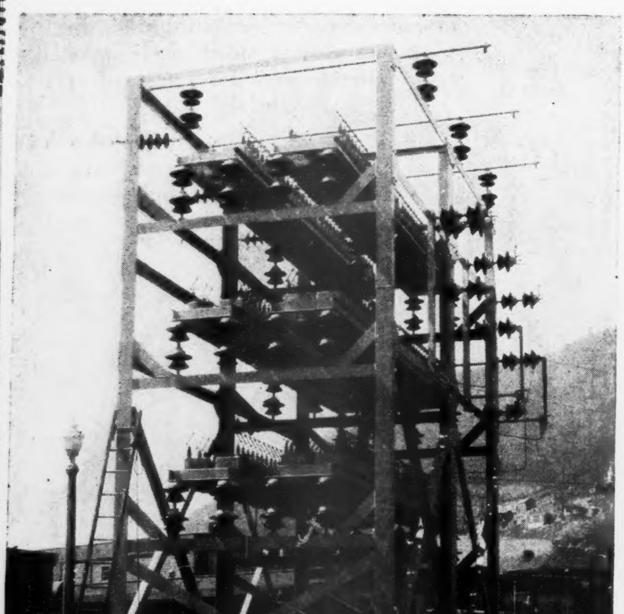
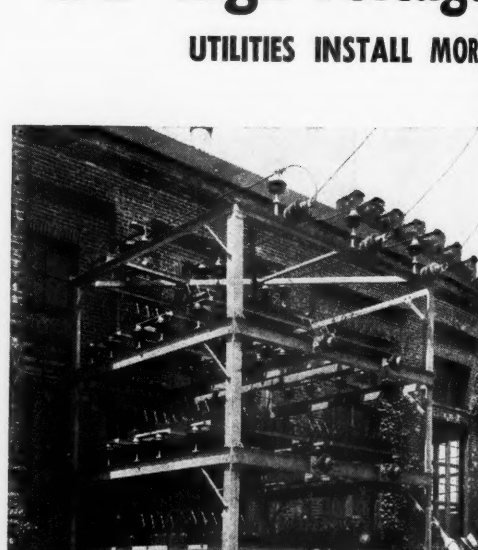
WORLD'S HIGHEST-VOLTAGE SHUNT CAPACITOR BANK at Bonneville Power Administration's Albany, Oregon substation. View shows one of the two outdoor open rack-type capacitor banks, rated 16,200 kvar, 124 kv.

G-E High-Voltage Ca

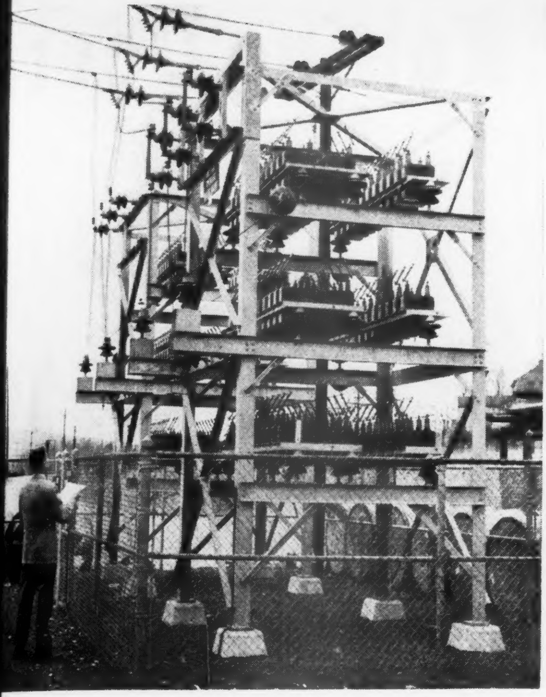
UTILITIES INSTALL MORE THAN



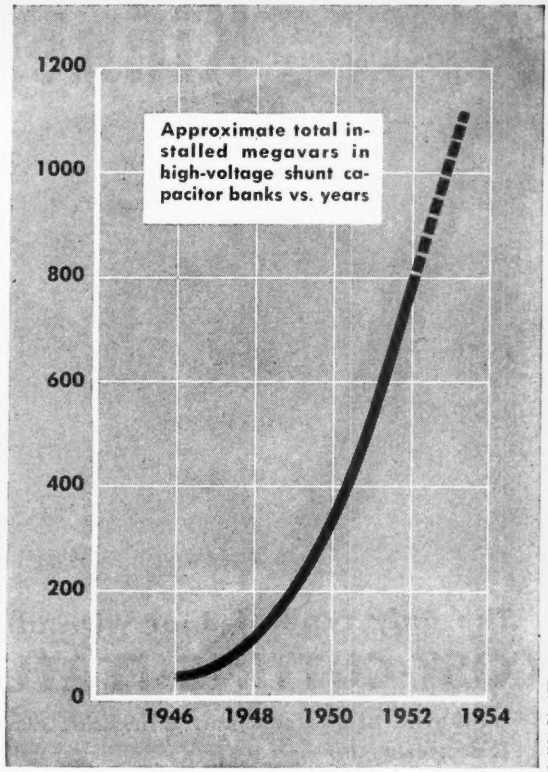
FIRST HIGH-VOLTAGE BANK completely supplied by General Electric is installed on the system of Appalachian Electric Power Co., Logan, W. Va. This Pyranol* capacitor bank is rated at 9900 kvar, 46 kv.



ONE OF MANY BANKS installed on Ohio Edison Co., high-voltage lines. This open rack-type installation, at Port Clinton, Ohio, supplies 5250 kvar, is rated 34.5 kv.



ROWING POWER NEEDS of New England Electric System e being met economically by installations such as these two anks of 21.6-kv capacitors located at a distribution substation.



ge Capacitor Banks Cut Transmission Costs

MORE THAN 800,000 KVARS SINCE G-E PIONEERED FIRST COMPLETE BANK IN 1948

More and more utilities are installing capacitor banks to reduce voltage drop and to cut power losses on high-voltage lines. Although less than five high-voltage capacitor installations were in existence before 1948, today more than 100 banks have been installed, and at voltages as high as 124 kv. By improving voltage levels and reducing power losses, these banks provide for the transmission of larger blocks of power. Also, the banks are used to supply kilovars for unloading transmission and generating equipment where customers draw large amounts of kilovars from the system at subtransmission voltages.

Since pioneering early high-voltage installations, General Electric has supplied a majority of the 800,000 kilovars installed at voltages above 15 kv. The unequalled design knowledge thus gained enables General Electric to supply complete banks for your specific applications, whether of the field assembled or factory assembled "building-block"* design.

It will pay to re-evaluate the use of capacitors on all parts of your system. A General Electric application engineer will be glad to work with you in determining what portion of your increased load can be economically supplied by capacitors. Call your nearest G-E Apparatus Sales Office, or write General Electric Co., Section 441-5, Schenectady 5, N. Y.

*Reg trade-mark of General Electric Co.

WORLD'S HIGHEST-VOLTAGE ENCLOSED BANK (66 kv) supplies 5950 kvar on Florida Power Corporation system. Blocking reactors in installation prevent attenuation of carrier signals.

You can put your confidence in—

GENERAL ELECTRIC

UTILITIES *A·l·m·a·n·a·c·k*

FEBRUARY-MARCH

Thursday—18 *Pennsylvania Electric Association, Systems Operation Committee, begins meeting, Johnstown, Pa.*	**Friday—19** *Controllers Institute of America begins southern conference, New Orleans, La.*	**Saturday—20** *Southwestern Association of Advertising Agencies ends 3-day annual convention, Houston, Tex.*	**Sunday—21** *National Electrical Manufacturers Association will hold spring meeting, Chicago, Ill. Mar. 8-11. **Advance notice.***
Monday—22 *Mid-West Gas Association will hold annual meeting, Des Moines, Iowa. Mar. 15-17. **Advance notice.***	**Tuesday—23** *Texas Telephone Association will hold annual convention, Forth Worth, Tex. Mar. 15-17. **Advance notice.***	**Wednesday—24** *Louisiana Telephone Association begins annual convention, New Orleans, La.*	**Thursday—25** *Annual National Adequate Wiring Conference begins, Chicago, Ill.*
Friday—26 *Public Utilities Advertising Association, Region I, ends 2-day meeting, Montreal, Quebec, Canada.*	**Saturday—27** *American Concrete Pipe Association ends 3-day annual convention, San Francisco, Cal.*	**Sunday—28** *American Water Works Association, Illinois Section, will hold annual meeting, Chicago, Ill. Mar. 17-19. **Advance notice.***	MARCH **Monday—1** *American Society for Testing Materials begins spring meeting, Washington, D. C.*
Tuesday—2 *Kentucky Independent Telephone Association begins annual convention, Lexington, Ky.*	**Wednesday—3** *Southeastern Electric Exchange will hold annual meeting, Boca Raton, Fla. Mar. 22-24. **Advance notice.***	**Thursday—4** *Pennsylvania Electric Association, Relay Committee, begins meeting, Philadelphia, Pa.*	**Friday—5** *Canadian Electric Association, Western Division, ends 5-day meeting, Winnipeg, Manitoba, Canada.*

Courtesy, Michigan Gas Storage Company

Winter Scene of Pipeline Welding

Natural gas pipeline construction continues despite low temperatures on the Michigan peninsula.

Public Utilities FORTNIGHTLY

VOL. 53, NO. 4 | FEBRUARY 18, 1954

Transitional Loss Allowance—Cure For Regulatory Lag?

Ever since the postwar inflation began to make public utility rate increases more and more freque and necessary, the regulatory problem of catching up with the lag in the rate case has been a serious matter. Large public utility companies have estimated losses running into millions of dollars because of the delay between the time a petition for a rate increase is filed and the time when increased rates can go into effect. Here is the viewpoint of a Canadian regulator, who decided to do something about the matter and whose decision stuck.

BY G. M. BLACKSTOCK, QC*

FORMER CHAIRMAN, BOARD OF PUBLIC UTILITY COMMISSIONERS, PROVINCE OF ALBERTA

THE Board of Public Utility Commissioners of the Province of Alberta derives many of its jurisdictions and powers from The Public Utilities Act, and in that statute we find two simple words well known to courts, to public utility companies, to regulatory bodies and commissioners, to municipal officials, and to others concerned with rates and rate making. Those two words are "just" and "reasonable" and are found conjoined with the generic term "rates."

Much has been said and many words have been written concerning the connotation and interpretation of those apparently simple words, which are of

*For additional personal note, see "Pages with the Editors."

vital importance to utility companies in particular, and in general, it is hoped, to regulatory bodies and to those who use and enjoy utility services. The latter, however, are not particularly interested in the justice and reasonableness of rates but are concerned mainly with the total of the monthly bill. If rates, and consequent monthly bills, go up, no matter for what reason, there is an outcry that the rates are unfair and the public drum is usually beaten loudly and long by a press which unfortunately is not seized of the facts.

IN the writer's early days as chairman of an administrative board he searched for an authoritative statement of what constituted just and reasonable rates and for the application thereof to rate making. The pronouncement made by Mr. Justice Swayze in the Passaic gas case, appealed to the writer with much force in that it seemed not only, in itself, just and reasonable, but completely conclusive. The learned justice said:

> On the one hand, a just and reasonable rate can never exceed, perhaps can never equal the value of the service to the consumer. On the other hand, it can never be made by compulsion of public authority so low as to amount to confiscation.

A somewhat similar test was laid down by the Supreme Court of Canada in the case of Edmonton *v.* Northwestern Utilities, Limited, 1929 SCR 129:

> The duty of the board was to fix fair and reasonable rates, which under the circumstances would be fair to the customer on the one hand, and which on the other hand, would secure to the company a fair return for capital invested. By a fair return is meant that the company will be allowed as large return on the capital invested in the enterprise (which shall be net to the company) as it would receive if it were investing the same amount in other securities possessing the same attractiveness, stability, and certainty, equal to the company's enterprise.

These judicial pronouncements, while complete and perhaps unanswerable, do not afford a guide in their applicability to the problems which beset administrative and regulatory boards, which is quite another story. Theory and practice do not always coincide.

WHAT are the various factors which must be considered, weighed, and tested before the quasi judicial answer can be formulated? The judicial pronouncement may afford some aid to the administrative board. If, however, one factor in the equation is missing then the answer fails to reach the proper desirable standard. It must be assumed, since the ghost of Smyth *v.* Ames has been laid, that regulatory bodies are free to compile and compute the various factors which lead to rates which are just and reasonable, in such manner as may seem just to them.

Fair value so-called, reproduction cost new, original cost, or prudent investment, or a combination or a variation of them, must produce divergent results, but so long as the method is blessed with judicial sanction in that there is no confiscation no one can be heard to complain. Depreciation, or as it should be called in rate making, amortization or recapture of capital, is subject to the judgment or even to the whim and caprice of the individual board;

the rate of return may be fixed by reference to indices of various kinds or may even be pulled out of the air; estimates of cost and of commodity consumption may be and generally are reasonably accurate, even if regarded by opposing interests with gloomy suspicion, but so long as the test of confiscation is not violated—why all is well.

These various factors used or abused as they may be make up one side of an equation which does not always justly equate. One missing link in the chain (overlooked in the past) is that which has become known as "the time lag." Nothing can be more unfair to utility companies than failure to recognize the serious effect upon revenue which time lag unfortunately but inevitably imposes on them between the date of an application for rate revision and the date when the board's decision brings new rates into effect—assuming, of course, that rate revision upwards is warranted by the evidence. The transitional period is often for one reason or another unduly long. The utility knows from its profit-and-loss account and its rate of return on its rate base that rate revision is warranted, but the preparation of material for presentation to the administrative body may take weeks or even months. The respondents require time for the preparation of their material—counsel are retained elsewhere—important expert witnesses must have ample time to formulate their views, and are only available to give evidence at times which will accord with other engagements.

These examples can be multiplied *ad nauseam* but the fact that the applicant, in the meantime, is short of required revenue is always overlooked. It must never be forgotten that public service bodies under regulation have either a statutory or an implicit right to earn a specified rate of return on a rate base, irrespective of how that rate base is computed, and that such bodies should not be deprived of that right merely because of defects in the regulatory process.

The writer's board adopted what might be called an administrative expedient many years ago, in an endeavor to minimize time lag. Perhaps the expedient was neither new nor novel. However, experience had demonstrated that in addition to the events causing delay referred to above counsel time after time would seek an adjournment, simply because they were not in a position to cross-examine a technical witness, without consultation with their clients and their own expert witnesses. That is, of course, fair enough, but in the meantime the lag keeps on lagging and the applicant company continues to suffer revenue loss. The expedient devised

"Nothing *can be more unfair to utility companies than failure to recognize the serious effect upon revenue which time lag unfortunately but inevitably imposes on them between the date of an application for rate revision and the date when the board's decision brings new rates into effect—assuming, of course, that rate revision upwards is warranted by the evidence. The transitional period is often for one reason or another unduly long."*

by the writer, completely exasperated by all of these varied reasons or excuses for delay, of ordering exchange of technical material between the various parties on specified dates prior to the commencement of the hearing, helped to speed things somewhat, but did not afford a realistic solution to the utilities' financial problem involved in the over-all lag.

THIS question came into sharp focus in Re Canadian Western Natural Gas Company Limited in 1948. That company purchases natural gas extensively from fields which it does not own or control, and was faced with an increase in the wholesale price effective on September 15, 1948. The company had previously absorbed an increase in the wholesale price but the cumulative increase amounted to 3 cents per MCF, to which had to be added the sharp advance in capital costs and in maintenance and labor costs. Application was made to the board on September 15, 1948, for rate revision but by reason of unfortunate delays the hearing did not commence until January 12, 1949, and on January 13th (on application of consumer interests) was adjourned until January 31st.

When granting the adjournment the board, in an oral unrevised pronouncement but after some deliberation, said in part:

> . . . if they (*i.e.,* the applicants) make out a case for an increase and if that increase is granted, then to that increase there is to be paid the loss for the period from fifteenth of September until the effective date of the new order. . . . The gas company is not to be under any loss from the fifteenth of September until the new order goes into effect.

The hearing continued intermittently until its conclusion on March 1, 1949, with the usual hundreds of pages of transcript and voluminous exhibits. It should be pointed out that this hearing was only the first stage in the proceedings and was confined entirely to the question of "required revenue." When that phase had been determined it then became the duty of the utility (as the board thinks) to formulate new rate schedules for presentation at a further hearing for final determination.

THE board has many and varied jurisdictions calling for substantial time, deliberation, and unfortunately miles of travel in a far-flung province. It was soon apparent by reason of extended time lag that transitional loss must accumulate for a long period of time unless some interim and partial solution could be found. The board's findings as to rate base and matters collateral thereto were ready for delivery by the beginning of June and the utility company was advised thereof and was invited to prepare interim rate schedules based on these findings. The company complied and after a brief hearing following upon delivery of the interim rate schedules to all parties in opposing interest these schedules were approved by the board in its decision of June 22nd.

As it happened the permanent schedules approved on December 2, 1949 (after a prolonged hearing), were so substantially in agreement with the interim schedules, that very little if any further calculation of transitional loss was required.

HERE we have a case, where transitional loss was suffered by the utility from September 15, 1948, until July 1, 1949, almost all due to time lag, and had it not been for the remedial interim procedure

Low Rates on Borrowed Time

"It matters not whether a utility company under regulation, affording service to the public, be big or small, elapsed time should not become an instrument of oppression on the utility nor should elapsed time afford to consumer interests, rates which are lower than are warranted by financial facts. In unregulated industry, manufacturers, jobbers, and wholesale changes in price levels are reflected on retailers' shelves in a matter of hours."

adopted by the board that loss would have continued until January 1, 1950. It matters not whether a utility company under regulation, affording service to the public, be big or small, elapsed time should not become an instrument of oppression on the utility nor should elapsed time afford to consumer interests, rates which are lower than are warranted by financial facts.

In unregulated industry, manufacturers, jobbers, and wholesale changes in price levels are reflected on retailers' shelves in a matter of hours. Does regulation mean that public service companies under regulation must suffer from the defects of regulatory process and must the user of utility services secure fortuitous benefits arising from the same cause? If that is an accurate postulate then the regulatory process must come within that appraisal of the law suggested by the novelist Charles Dickens when he caused Mr. Bumble to say, "The law is a ass, a idiot."

THE board should not attempt to assess or place the blame for the time lag in the instant case, but must ascribe that lag entirely to the regulatory process and must accept its own due share of the fault. The board in this case found a remedy which is comparatively simple but which when applied in other cases might become complex according to circumstances but, in spite of circumstances, the same remedy can be advocated by counsel, accountants, and engineers and in the interest of justice should be applied in all cases by administrative bodies.

Perhaps the simplest way of demonstrating the board's solution is to quote

from its decision of December, 1949, when it said in part:

It remains to compute and allow transitional loss sustained by the company during the transitional period from fifteenth of September, 1948, until the end of June billing period 1949. . . . The company has submitted to the board details of MCF of gas delivered in such transitional period as being:

Domestic	6,722,150
Commercial	4,027,408
Industrial	7,265,900
	18,015,458

and has given the average rate during the transitional period as:

Domestic	27.50¢
Commercial	24.82¢
Industrial	12.61¢
Average for all MCF	20.89¢

The average rate for all of the year 1948 is somewhat less, being 20.59 cents per MCF, but the board thinks it just and reasonable to accept the former figure as the basis for this computation.

Estimated total sales as presented by the company at the hearing for the years 1949 and 1950 were:

1949	20,306,000 MCF
1950	20,572,000 MCF
	40,878,000 MCF

The transitional loss is therefore computed as follows:

Allowed revenue 1949 and 1950	$9,384,447
Estimated sales in MCF 1949-50	40,878,000
Average rate—based on above	22.96¢
Average rate during transitional period	20.89¢
	2.07¢
Transitional Loss	
Sales Sept. 15, 1948, to June 30, 1949, MCF	18,015,458
18,015,458 MCF x 2.07¢	$372,920

. . . Owing to the fact that the transitional period has now been extended by reason of this decision having been delayed longer than was expected the transitional loss has been increased as above and the board considers that its recovery should be spread over a period of five and one-half years payable $32,-920 in the year 1949 and $68,000 in each of the years 1950 to 1954 inclusive. The board considers that the total transitional loss should be added to the rate base and as annual recoveries are made as above the rate base will accordingly be reduced.

In effect the board said that the utility was entitled to earn the difference between the average of the old rates and the average of the new rates multiplied by the volume in MCF of gas sold during the transitional period, and that since retroactive rates are impracticable (if indeed not forbidden by statute), justice to the utility required that the quantum of the loss be capitalized as indicated.

This principle of recouping loss occasioned by time lag laid down by the board in 1949 is now accepted in this province as a fixed principle of public utility law. The same principle was applied by the board in the Northwestern Utilities Case in 1952, where a somewhat similar time lag occurred between the date of application for revision and the effective date of the new order. In that case the final computation of transitional loss was arrived at by using the same factors as were used in the Canadian Western Case and was accepted without question by all parties before the board. (See PUBLIC UTILITIES FORTNIGHTLY, August 28, 1952, page 324.) It should be pointed out, however, that this principle cannot be applied in the

case of a utility coming under regulation for the first time. It is only justified when new rates and the antecedent rates have been fixed by a regulatory body.

What the board did was to introduce an apparently new principle into rate making, just as courts of equity throughout the centuries endeavored to formulate and apply principles which could and did remedy that wherein the common law erred. It seems to the writer that regulatory bodies should seek methods and principles which will militate against the harshness and inequity which time lag imposes on utility companies without, at the same time, placing undue burdens on consumer interests. To quote Mr. Justice Swayze again, "Justice to the consumer would require a rate somewhat less than the full value of the service to him!" That pronouncement remains true and correct, so that if transitional loss, properly computed, is added to the utility rate base and is amortized over an appropriate number of years, there is no injustice to the consumer.

The proper and correct application of this new principle should assist in preserving the financial integrity of utility companies, while to the consumer the impact can be measured only in fractions of one mill per MCF. Can anyone assert that such procedure results in unjust and unreasonable rates? The writer's considered opinion is that the remedy applied in the two cases referred to is in strict conformity with the statute whence the board derives its powers and jurisdiction.

Unscrambling Socialistic Eggs

"Dispatches *report that the British government has received requests to buy almost three times the amount of stock offered in United Steel Companies, Ltd. This company is one of the 'big seven' steel producers nationalized by the former Labor government of Britain, all of which the present government wants to return to private ownership.*

"For this particular company the government is offering $14,000,000 shares to the public. In twelve days it has received 52,000 applications seeking to purchase a total of 40,000,000 shares. As a result, the government is going to have to prorate the offering, giving preference to the former shareholders who were forced to sell out to the government. . . .

"One of the little dogmas of the Socialists, and one too easily accepted by their opponents, has been that Socialism is a one-way street. The theory has been that once a Socialist government expropriated industry there would be no practical way of undoing it, even if nationalization proved a failure and the program was rejected by the electorate. It was a theory summed up by the late Sir Stafford Cripps with the remark that 'you can't unscramble eggs.'

"Well, the British people found that nationalization was not such a savory dish after all and the British government is finding it not impossible, though it will certainly be difficult, to unscramble some of the Socialist eggs."

—Editorial statement,
The Wall Street Journal.

Creative Technique in Executive Development

This is the story of a utility management workshop—a program for special training of executives—which grew out of an idea of industrial leaders who approached a Columbia University professor with a proposal that some such special sessions be developed.

By HERBERT H. JACOBS*

The Problem

THE principal asset of any organization is its people. People keep the boilers fired, the machinery working, the customers happy, and the bills paid. The effectiveness of any enterprise can always be measured in terms of the accomplishments of its people: their individual performances and their collaborative abilities.

Yet within any ordinary American community, one sample of, say, 100 or perhaps 1,000 people selected at random will be about the same as another sample. Some people will be bright, some dull; some will be zealous and loyal, some cunning and petty; some will have serious personal or family problems; some will be ever-smiling. The mean level of abilities will be about the same and so will the range of individual characteristics. What, then, is it that makes one organization succeed where another fails? What makes one company prosper and expand while another remains stagnant and in peril?

The answer must lie in the relatively small group of leaders or executives who, in the end, make organizations function. Without them, there can be no directed action, no homogeneity of purpose. They lay the plans, take the risks, make the decisions, prophesy the future; they trans-

*Associate director, Utility Management Workshop, Columbia University. For additional personal note, see "Pages with the Editors."

late policies into plans, plans into action, action into accomplishment; they design and administer the organizational units, large and small, which make possible the vital elements of task specialization and integrated effort. They attend to the needs of their people while insuring that their people serve the needs of the organization.

The Utility Management Workshop

IN playing their organizational rôles, they extend their own powers by making effective use of the minds and labors of others.

Real executive talent is not common. To function effectively in an executive capacity, a man must display a wide assortment of skills in his relationships with others. These relationships will be of superordinate, subordinate, and coordinate nature; a variety of rôles which are hardly complementary. He must be a leader who need not rely on the formal powers which have been invested in him. He must be a follower who need not be led. He must be able to follow through the ideas of his superiors, capable of originating ideas of his own, and willing to listen to and accept with credit, the ideas of his subordinates.

He must be a shrewd decision-maker. He must have a sound intuition for strategy, tactics, play, and counterplay. He must know when to probe, when to feint, when to spar, when to jab—and when to slug. He must maintain a clear, ordered picture of goals and subgoals. He must display the necessary initiative and imagination to ferret out alternative means and plans. He must evaluate these alternatives accurately, surmise the risks, the costs, the probable gains and losses. He must use this talent to make the decisions which have to be made *when* they have to be made. Having decided, he must feel the responsibility involved—yet be at peace in it.

HIS social perception must be sensitive enough to maintain the respect of those with whom he must deal on a day-in, day-out basis. He must be adroit in communicating with others, while himself remaining open to communication. He must welcome the challenge in competition with his executive colleagues, yet be secure enough to live in a competitive situation.

There are innumerable other personal qualities which a good executive should possess. If those were all definable qualities, they would include, among other things, his physical characteristics, personality make-up, and intellectual abilities. Articles and speeches have been written which describe what an executive should be and how he should behave. But this is the smallest part of the problem. The difficult question is—how do you find and develop people who can pass this muster?

There is an old saying that good leaders are born and not made. At one time, this may have been enough. Today, no company can sit about waiting for these births to happen; they must make them happen. Any organization which looks ahead must find the means of begetting its own future executive leadership. Nowhere is this more true than in the utility industry. Utility management requires not only the ordinary executive skills, but also a highly special set of talents, abilities, and awarenesses. Some of these are technical in nature; some relate to the delicate rela-

tionships which exist between utilities and the communities in which they operate; some derive from governmental regulation imposed from above. Within the utility industry, therefore, the problem of finding and developing internal executive resources is a critical one.

THIS is the problem that three years ago confronted a small group of top utility executives. Much had been written about executive behavior and executive development programs — but still there existed no means for training executives in the executive function. They were convinced that more than words and programs were required to meet this need. What was necessary was a means of stimulating, encouraging, and guiding utility executives to create the circumstances best conducive to the growth and development of future executives. This meant that the opportunity had to be provided for them to read, talk, and argue—and above all *think* about the executive problem in all its aspects, from the individual characteristics demanded of the man himself and the means of self-evaluation to the availability and variety of training programs, considered particularly in regard to the special needs of any given company—and all of these problems in the light of the best-informed opinion available.

Workshop History—the Idea

ESTABLISHING themselves as a planning committee, these thoughtful industrial leaders approached Professor Robert T. Livingston, then executive officer of the Department of Industrial Engineering at Columbia University, with the proposal that Columbia establish some sort of special session in executive development to meet the needs of the public utility industry. Professor Livingston (who is not only an author and specialist in the general field of management but who has served long years in the utility industry dealing directly with problems of executive behavior and education) accepted the proposal. The Department of Industrial Engineering and Columbia University expressed their willingness to support the undertaking—and thus the Utility Management Workshop was established as a joint venture of the utility industry and Columbia University.

From the beginning, the workshop revealed itself as a unique departure from traditional conference affairs, being designed for senior executives (at middle and top-management levels), with candidates to be nominated by the companies and screened by the workshop staff. Selections were to be made on the basis of the individual's ability to benefit personally from the experience, as well as his ability to translate that experience into benefits

¶ "REAL *executive talent is not common. To function effectively in an executive capacity, a man must display a wide assortment of skills in his relationships with others. These relationships will be of superordinate, subordinate, and co-ordinate nature; a variety of rôles which are hardly complementary. He must be a leader who need not rely on the formal powers which have been invested in him.*"

for his company. This is important, since one of the foundation stones of the Utility Management Workshop was the belief that executives can best encourage the development of others by considering their own abilities, problems, and needs and their own past, as well as future, development.

It is difficult to assign specific reasons to the immediate and continuing success of the workshop, but aside from the care and combined resources of industry and university that went into the organization, perhaps the single most important factor has been the membership itself. The approximately fifty executives who have passed through the workshop since its inception have come from all parts of the country—and represent all areas of the utility industry: gas, telephone, water, and electricity. They are engaged in handling a wide variety of industrial functions: engineering, accounting, personnel, distribution, industrial, and public relations, etc.

And yet all of these men share some of the same professional experiences, are aware of the same problems facing their industry, and are equipped with the same general educational background. Their experience has kept them in constant and critical contact with other people, both as individuals and en masse as the public, and they all share a healthy respect for the complexity and difficulties of human relations.

Not being in ordinary competition with each other, their similar backgrounds and interests have given rise to a companionship and a friendly kind of competition which is productive of an extraordinary degree of co-operation, and surprises even those most hopeful of the results of the workshop project.

The first Utility Management Workshop was conducted over a 2-week period in August, 1952. Held at Arden House, near Harriman, New York, it proved an immediate success. It was followed by the second Utility Management Workshop conducted in May, 1953, which, benefiting from the first year's experience, drew even more enthusiastic praise. By this time, the workshop had become an institution.

And here, let us add a little about the site of the Utility Management Workshop. Columbia's recent acquisition, now known as the Harriman Campus, is located in the Ramapo Hills just fifty miles from New York. Arden House itself was built by Edward Henry Harriman between 1905 and 1909 and stands out above a high ridge dominating miles of woodland, bordered on one side by the valley of the Ramapo river, on the other by Forest and Cranberry lakes. Its ninety-six rooms, including large and small conference rooms, provide the ideal physical circumstances in which a group of people may come to concentrate their efforts in fruitful activity. Its swimming pool, tennis court, and complete outdoor recreational facilities, including fishing on Cranberry lake, provide a unique opportunity for relief from the strain of intellectual occupation and contribute in an important way to the development of a creative atmosphere.

In 1950, Arden House was given to Columbia by W. Averell Harriman in memory of his father and mother. Here in that same year, President Dwight D. Eisenhower, then president of Columbia

The Asset of Executive Ability

"In any reckoning of our national wealth, the public utility industry must appear very near the top of the list—and the executive resource in this, and every other industry, cannot be too highly regarded. The achievements which come out of the Utility Management Workshop reflect with equal credit on the participants, who bring to it their imagination and their skill, the industry—and upon the workshop itself as a dynamic institution."

University, established the American Assembly. Here, too, are held class reunions and conferences of many kinds sponsored by various divisions of the university, including the Utility Management Workshop, operated by the Department of Industrial Engineering.

The Process

THE process by which the workshop was designed to operate can be broken down into three principal divisions. The first of these is the making available of expert assistance. Men who have devoted their adult careers to the study of executive problems and the organization of executive development programs are brought in to tell what they know, and to have their brains picked in small clinic sessions. They are selected on the basis of their particular specialties and the relation between their specialties and the problems under consideration. They include university professors, psychologists, and, most important of all, other utility executives, as well as executives from other industries.

Thus over a relatively brief period of time, each participant is exposed to decades' worth of accumulated knowledge and experience, together with the most informed opinion available. Actually, this is much more than passive exposure because the sessions are completely informal, permitting a free interchange of facts, opinions, and experiences.

Supplementing the visiting experts, the workshop staff members present basic material and research findings which have been derived from their own work in the field of organization and management. These presentations, offered at plenary sessions, are designed to introduce some of the basic ideas and concepts relating to such areas as organization, leadership, executive decision-making, the executive

job, the description of the executive as a man, the utility executive and society, etc. Thus, at the very beginning, a common language is established and the basic tools are provided for further exploration.

The second part of the workshop process is based on the use of clinic or conference sessions. These sessions are organized about special problems or "tasks." The registrants are divided into small groups consisting of roughly a dozen participants, together with a skilled conference leader and a group interne, both members of the workshop staff. These groups organize themselves, proceed in their own way, developing their own viewpoints, and present a final report on their findings to the rest of the conference. They meet with the visiting experts, study the library references made available, and discuss among themselves the various aspects of the "task" assigned. The workshop staff supports their efforts by providing consultation, visual aids, secretarial services, etc.

Thus, each participant is exposed at once to the written and the spoken word —and is encouraged to digest the best information available and to use that knowledge to create his own solutions to the problems of executive development.

Finally, and perhaps most important, provision is made for independent study, contemplation, and consultation. Each participant is sent, in advance of the conference, a work kit which is really a miniature reference library on executives and executive development, and includes a comprehensive bibliography of outstanding books, and reprints of leading articles. At Arden House, a special library devoted to executive behavior and development is made available for browsing. In the past, each executive has been given individual counseling on problems in such areas as psychological testing and reading comprehension programs. Moreover, there is ample free time after all these activities for the spontaneous formation of small "bull sessions" which do much to crystallize individual insights in immeasurable ways.

In general, the conference sessions help each man to formalize his own thinking by providing the personal opportunity of directly contributing to the solution of actual problems.

The Program

All workshop activities (which include "task" assignments, staff presentations, and sessions with experts) are organized about some theme or set of themes which constitute the program. Each year's program is carefully fitted to the needs of practicing executives by the simple expedient of obtaining fresh suggestions from previous workshop participants and executives who have played an interested or sponsoring rôle in workshop affairs. These suggestions are then distilled by the workshop staff to form the nucleus of the current program, which is first tested against a selected sample of utility executives and referred to the industry planning committee for final review.

Once the basic program has been established, the workshop staff collects background and research material, works out special bibliographies, and sets up detailed presentations on special topics. Guest experts are assigned problem areas to talk about and a variety of work problems are drawn up.

At the conclusion of each conference, the presentation of experts and staff, together with the reports prepared by the executive "task" groups, are edited and published as *Workshop Proceedings,* which are then distributed to the participants as a record of the conference and the findings which it produced. In a way, this volume is intended to serve as a personal reference file on executive development problems. It is also made available at cost to others who may be interested in executive development, both within and without the utility industry.

To get a more detailed picture of the workshop program, it is interesting to take a look at the programs of the first two sessions.

The 1952 workshop was set up to study the job of the utility executive and the formal programs available for developing executive talent. Accordingly, the first week's program, entitled "A New Look at the Executive," investigated four basic aspects of the executive rôle: (1) All executives plan and decide. (2) All relations are public relations. (3) All relations are human relations. (4) All executives supervise and control. The second week was given over to executive development programs, with particular regard to the three central elements in all of them—selection, training, and development, and concluding with a final comparative evaluation of the merits of alternative schemes.

Among the eleven specialists who contributed their experience and knowledge to the first workshop were James W. Carpenter, vice president, Long Island Lighting Company; Jackson Martindell, president, American Institute of Management; and Earl C. Planty, executive counselor for Johnson & Johnson.

The 1953 workshop program was dedicated to the twin problems of finding executive talent and stimulating executives in self-development. Included within this program were two basic explorations into (1) the individual characteristics required by an executive job in utility management, and (2) techniques for the discovery and refinement of these characteristics. The first of these considered such topics as the executive's job, the corresponding characteristics of the individual, self-evaluation, and evaluation by others. The second touched on such ideas as the executive stereotype, the evaluation and development of an executive's ability to judge problems and people, and the ability to delegate authority. This year there were eight visiting experts, among whom were Harold F. Smiddy, vice president, General Electric Company; F. E. Verdin, director of personnel, Cleveland

¶ "Even *though the workshop will be celebrating its third birthday this year, its success is already established. The original small list of sponsoring utilities has expanded considerably. Many companies have made representation at the workshop an annual activity and some individual executives have themselves returned. Everyone associated with the workshop . . . is highly enthusiastic."*

Electric Illuminating Company; and Dr. John P. Foley, Jr.

Results

EVEN though the workshop will be celebrating its third birthday this year, its success is already established. The original small list of sponsoring utilities has expanded considerably. Many companies have made representation at the workshop an annual activity and some individual executives have themselves returned. Everyone associated with the workshop — sponsoring companies, participating executives, visiting experts, and workshop staff — is highly enthusiastic. Most of the people who have been in on the first two years feel that they have learned, not only how to develop other executive, but also themselves.

A total of approximately fifty utility executives have so far passed through the workshop sessions. Many of these have gone from Arden House to establish or revise executive training programs in their own companies (to the benefit of future workshops which may now draw on their experience, too). All of the workshop "alumni" have taken away something which, while it may never find formal application, will nevertheless be reflected in their future individual performance as executives: They have been enriched by a greater awareness of the executive function and the importance of attending to the nourishment and preservation of the executive resource. Those who have been close to the workshop during its formative years like to think that the rising careers of the executives who have been touched by it are due, in some small measure at least, to its creative influence.

One of the most interesting sequels to the workshop story is the effect which it has had on the people who have participated in it *as people.* A very strong "alumni" spirit has developed, with the result that many of the previous participants have taken an active interest in spreading the news and promoting workshop affairs. Not only that, but close friendships developed at the workshop have resulted in a network of strong personal ties enabling those who have participated to share post-workshop experiences in executive development.

The 1954 Utility Management Workshop

THE 1954 workshop has been planned for the 10-day period May 16th to May 26th. As before, it will be held at Arden House and arrangements have been made to accommodate up to thirty-five registrants. Advance registrations are now being accepted.

Following the basic procedure, the workshop will be conducted as a genuine problem-solving activity rather than a straight series of lectures. Real problems will be undertaken through the joint participation of the executive participants, the visiting experts, and the Columbia University staff and research team, who will have prepared material and projects for the conference beforehand. The visiting experts as usual will act as consultants and contribute their specialized knowledge to discussions and informal "bull sessions." The executive participants will pool their practical insights and individual experiences as they combine in "task" forces, for research, study, and plenary sessions to work out solutions to real problems.

A number of special features are anticipated, including demonstrations of programs and techniques for increasing read-

ing speed and listening comprehension.

THE program for the 1954 Utility Management Workshop is to be built around three problems which comprise the "tasks" of the conference. These are:

1. *The Executive Function:* What do executives do? What are the requirements of the executive function? In particular, what is unique about the utility executive job?

2. *Executive Appraisal:* How can executives be appraised? How to evaluate the potential of an individual? How to measure the accomplishment of an executive?

3. *Executive Development:* What are the problems of designing and installing executive development programs? What kinds of programs are most likely to be successful? How can the problems of installing such programs best be met?

Membership in the 1954 workshop will be limited to a maximum of three representatives from any one company. Upon completion of the conference, certificates will be awarded to the conferees, certificates which are intended to signify more than a formal recognition of attendance, but a record of real accomplishment in contributing to the solution of problems which must be met before we can utilize fully the nation's greatest resource, that of the human mind.

IN any reckoning of our national wealth, the public utility industry must appear very near the top of the list—and the executive resource in this, and every other industry, cannot be too highly regarded.

The achievements which come out of the Utility Management Workshop reflect with equal credit on the participants, who bring to it their imagination and their skill, the industry—and upon the workshop itself as a dynamic institution.

Financing Rural Electrification and Rural Telephones

"THE *need for rural electrification loans has become less as the proportion of our farms that are electrified has increased. About 91 per cent of our farms are now electrified. Only about 42 per cent of our farms, however, have telephone service. The budget recommendations for these two programs in the fiscal year 1955 provide loan funds sufficient to finance substantial further expansion of electrification and telephone services in rural areas.* IN ORDER TO REDUCE THE NEED FOR FUTURE FEDERAL AID, THIS ADMINISTRATION ALSO IS EXPLORING POSSIBLE ARRANGEMENTS WHEREBY MORE PRIVATE CAPITAL CAN BE MADE AVAILABLE TO FINANCE TELEPHONE SERVICES IN RURAL AREAS." (Emphasis supplied.)

—EXCERPT *from President Eisenhower's Budget Message for 1955 (fiscal).*

The Challenge of the West Coast's Dynamic Growth

It is a cliché on the West coast that "the abnormal becomes normal in California." Certainly the tremendous and now historic growth of the Golden state since the beginning of World War II has imposed precedent-breaking challenges on the public utility systems of that state laboring under the obligation of rendering service to the public.

By JANE ESHLEMAN CONANT*

When California's manufacturing industry payroll grew 81.6 per cent between 1947 and 1952, it was naturally a matter of interest to the Census Bureau and the chambers of commerce.

When the once sleepy, sunny county of Contra Costa, for instance, grew 197.6 per cent between 1940 and 1950, it was of considerable importance to home builders, retailers, and real estate men.

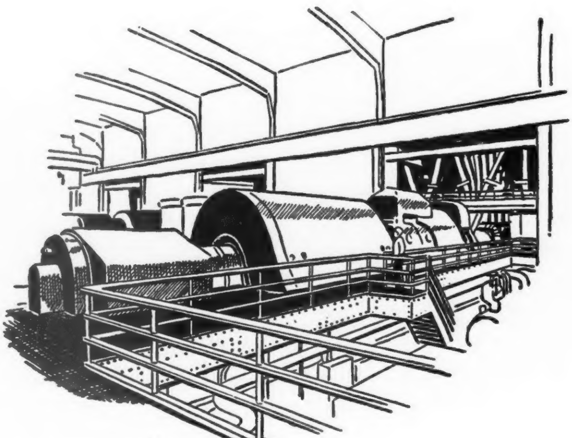
And when California auto registrations increased from 2,573,264 in 1940 to 4,320,124 in 1951, there was substantial reaction in such widely varying fields as highway construction, tire repair, and the collection of taxes.

But the agency which has been most directly affected by the tremendous and now historic growth of the West since the outset of World War II is probably the Pacific Gas and Electric Company.

The utility may be called the weather vane of the "Great Migration" which has almost doubled California's population since 1940 and will probably add another 2,000,000 or more by 1960.

All these new people brought with them new demands—for food, homes, jobs, schools, and countless other needs. And

*Member, editorial staff, San Francisco *Call-Bulletin.* For additional personal note, see "Pages with the Editors."



almost all of these required power, fuel, or both.

When the agricultural valleys' crops were rushed into unheard-of production levels, electricity was needed to pump the irrigation water and light the packing sheds.

When new manufacturing plants blossomed in what had been farm fields, more power was wanted to run the machinery. And when thousands of new homes were built, still more was needed to operate the cement mixers and then the refrigerators, washing machines, and stoves.

The result has been a spectacular one for PG&E.

To meet the unprecedented challenge caused by one of the greatest population shifts ever known, the company has recorded this outstanding industrial achievement:

More than $1 billion was spent on plant expansion between 1945 and February of 1953.

Another $500,000,000 will go for additional development through 1955.

The company's system-wide electric generating capacity was more than doubled between the war's end and September, 1953, growing from 1,658,300 kilowatts to 3,540,200 kilowatts after seven years and eight months of construction.

By 1955, the system-wide capacity will be 4,526,100 kilowatts, almost three times the total of just ten years before.

Besides, the company acquired 363,935 new gas customers between 1946 and 1953. To match the need, it built 4,900 miles of transmission and distribution mains, including the California end of the new, 34-inch "Super Inch" main running 502 miles from Topock, Arizona, to Milpitas, south of San Francisco in California.

More construction is planned, above and beyond the $1.5 billion outlay of 1946-55. The company's engineers are studying undeveloped electricity sources and designing even more powerhouses.

It all adds up to more growth than PG&E had recorded in all its previous existence before 1940, a true weather vane performance pointing the direction of the California development winds.

The relationship is seen by examining two sets of statistics—those describing the state's expansion, and those showing how PG&E has not only kept pace but managed to stay at least a step ahead.

Some of the state figures might well be written off as fiction, if it were not that they are vouched for by such reputable agencies as the California State Chamber of Commerce, the State Department of Employment, and the United States Bureau of the Census.

For instance, the population in April, 1940, was 6,907,387. Just thirteen years later, it was 11,830,210—an increase of almost 5,000,000. The best estimates are that the 1960 figure will be over 14,000,000.

In other words, California, which started out with 13,000 residents of European descent in 1848 and took ninety-two years to reach the 7,000,000 mark in 1940, will be just twice that big twenty years later.

Contra Costa county's increase is a dramatic example. This once quiet county on rolling hills along the northeast shore of San Francisco Bay had 100,450 persons in 1940, but collected 198,534 more for a new total of 298,984 in 1950, due

first to war industry and later to tremendous residential expansion.

ANOTHER revealing set of figures shows what has happened to California manufacturing. The state's plants had a $4,108,760,000 payroll in 1952, as compared to $2,262,006,000 only five years earlier. The production of transportation equipment, for instance, cost $1,003,000,000 in wages in 1952, as against only $373,423,000 in 1947.

In 1951, California had $3,508,800,000 worth of new construction, a fabulous 324.2 per cent increase over 1939's $827,200,000.

GENERATING CAPACITY ADDED, 1946-53*

Plant	*Type*	*Location*	*In Service*	*KW Capacity*
Donbass	Steam	Humboldt County	1946	4,800
Kern	Steam	Kern County		
Unit 1			1948	75,000
Unit 2			1950	120,000
Electra	Hydro	Mokelumne River	1948	92,000
West Point	Hydro	Mokelumne River	1948	15,000
Salt Springs Addition	Hydro	Mokelumne River	1953	29,000
Station P Additions	Steam	San Francisco		
Unit 2			1948	110,000
Unit 3			1949	110,000
Colgate	Hydro	Yuba River	1949	25,000
Cresta	Hydro	Feather River	1950	70,000
Rock Creek	Hydro	Feather River	1950	110,000
Moss Landing	Steam	Monterey County		
Units 1 and 2			1950	226,667
Unit 3			1951	113,333
Units 4 and 5			1952	235,000
Contra Costa	Steam	Contra Costa County		
Units 1, 2, and 3			1951	340,000
Units 4 and 5			1953	235,000

*Retirement of the old Colgate, Electra, and Folsom plants subtracted 35,700-kilowatt capacity during the same period.

ADDITIONAL CAPACITY UNDER CONSTRUCTION**

Plant	*Type*	*Location*	*In Service*	*Kilowatt Capacity*
Pittsburg	Steam	Contra Costa County	1954	600,000
Pit 4	Hydro	Pit River	1955	84,000
New Murphys	Hydro	Calaveras County	1954	3,800
Morro Bay	Steam	San Luis Obispo County	1955	300,000

**Shutdown of historic Old Murphys, built in 1899, subtracts 1,900 kilowatts.

PROJECTED PLANTS
(Construction Dates Not Determined)

Plant	*Type*	*Location*	*Kilowatt Capacity*
Pit 6	Hydro	Pit River	60,000
Pit 7	Hydro	Pit River	54,000
Butt Valley	Hydro	Feather River	36,000
Caribou No. 2	Hydro	Feather River	109,000
Belden	Hydro	Feather River	113,000
Poe	Hydro	Feather River	106,000
Wishon	Hydro	Kings River	13,500
Haas	Hydro	Kings River	106,500
Kings	Hydro	Kings River	39,000
Balch Additions	Hydro	Kings River	80,500
Humboldt Bay	Steam	Humboldt County	50,000

Civilian employment totaled 2,574,000 in 1940. Twelve years later this was up a hearty 83.6 per cent to 4,726,000. Keeping even, transportation and utilities employed 186,000 in 1940, and boosted that figure 84.4 per cent to 343,000 in 1952, according to the State Department of Employment.

Farm crops were valued at $430,629,000 in 1940. The 1952 total was $1,796,394,000, or just 317.2 per cent more. Individual incomes totaled $5,606,000,000 in 1940, and grew 318.2 per cent to $23,450,000,000 in 1952.

Californians paid $1,075,513,345 in all sorts of taxes in 1940-41. The tax coffers overflowed with $7,521,889,507 in 1952-53 collections.

THE staggering statistics do not record the headaches and the growing pains attendant on this phenomenal record of growth.

PG&E had its share. To keep ahead of California's growth was a monumental job.

When World War II started, the company had plans for additional electric generating capacity and other facilities to meet the normal development for which a utility must naturally prepare several years in advance. But the war changed all that, in many ways.

It produced a great and immediate need for power and fuel for military establishments and war industries. It took away much of the skilled man power PG&E could otherwise have used to good advantage. It clamped down rigid controls on many materials needed for utility expansion.

And, perhaps most significantly of all, the war opened the migration floodgates which brought tens of thousands of wartime workers and then the second, and continuing, big wave of new postwar population.

During the fighting, the company had its hands full providing for war industries and the military installations, while still maintaining adequate service to the general public. When the war ended, there were some who predicted a slump. They said plans should be revised downward in accordance with the original prewar forecasts.

BUT early in 1946, PG&E had its chips down on the future. Its big expansion program was already well under way in the belief, now thoroughly substantiated, that the war boom was no temporary thing.

In his 1946 review, Company President James B. Black put it this way:

> Last year we observed that the war served to accelerate an already significant westward movement of population and industry. It is now even more apparent that much of the wartime growth is of a permanent character, and that the industrial, commercial, and agricultural development of this region will continue on a far higher plane of activity than before the war.

The "far higher plane of activity" applied to PG&E, too—$1.5 billion worth.

Its hydro capacity totaled 1,039,500 kilowatts in December, 1945, and steam, 618,800 kilowatts, for a system total of 1,658,300. The September, 1953, figures were 1,347,400 hydro and 2,192,800 steam, or 3,540,200 over all.

Additional capacity under construction and planned for completion by the end of

Taking the Hurdle in Stride

"THE PG&E postwar record may well be rated high as an instance of private capital and private individuals facing up to a big task and bringing it through to accomplishment—managing, in the process, to pay dividends as usual. From storm-wracked Donbass at Eureka and little 3,800-kilowatt New Murphys in Calaveras county, to the huge Pittsburg setup and broad-scale Feather river hydro additions, the company has not only kept up with the West's development but has helped to make it possible."

1955 calls for 87,800 kilowatts in hydro plants and 900,000 steam, or a total of 987,800 more in the next two years.

And on the books for "after 1955"—further work not included in the 1946-55 expenditure total of $1.5 billion—are ten more hydro installations with 717,500-kilowatt capacity, and substantial amounts of new capacity.

THE powerhouses themselves are not all, of course. The 1946-53 projects have added 2,100 miles of new electric transmission lines and 14,600 miles of new electric distribution lines, plus 283 new substations and substantial substation capacity additions.

The huge postwar expansion program began in colorful and ingenious "make-do" fashion at Eureka, on the northern California coast near the Oregon line. The first system addition after 1945 was the 4,800-kilowatt capacity Donbass steam plant, described by the company, in something of an understatement, as a "novel installation."

Donbass is the salvaged after-half of Donbass III, an American-built tanker which was operated by the Russians and which split in two during a violent storm

south of the Aleutians on February 17, 1946. To meet the extraordinary postwar demand for power in the Eureka area, PG&E bought the half-ship, had it beached on the Eureka water front, reconditioned its steam boilers, turbine, and generators and made it an efficient, 4,800-kilowatt producer of power for shore industries. It went into service December 16, 1946, just ten months after its Pacific disaster. The price tag: $320,000.

In gigantic contrast are the central California "twins"—the Moss Landing steam plant in Monterey county south of San Francisco and the Contra Costa steam plant over the hills to the east of San Francisco Bay. Each has 575,000-kilowatt capacity; each cost $80,000,000; and each has five units, put into operation as fast as manufacturers could deliver the equipment.

Bigger yet will be the Pittsburg steam plant, also in fast-growing Contra Costa county, a 600,000-kilowatt capacity titan costing $80,000,000 and due for operation in 1954.

A SIGNIFICANT item in the "after 1955" program is the Kings river hydro development, calling for three new powerhouses and additions to another, totaling 239,500 in new kilowatt capacity. This is the work which was held up so long by the Department of the Interior's efforts to give the Kings hydro rights to the Bureau of Reclamation as a so-called part of the Central Valley project. That battle has just ended with the new administration's announcement that it is dropping litigation designed to reverse the Federal Power Commission's award of Kings river licenses to PG&E.

The early part of the postwar expansion program was on a scale of almost emergency proportions, as shown by the Donbass project. The Kern steam plant, near Bakersfield at the southern end of the PG&E system, came close to fitting into that category, too. It was originally set for immediate construction in 1941, but the war compelled postponement. So, as soon as the fighting stopped, it was given a rush-order signal. Ground was broken in September, 1946, and the first 75,000-kilowatt unit went into service on May 10, 1948, after one year and eight months of work by a crew of 1,000 men. Even airplanes helped; at one point, 20 tons of valves and other parts were brought in by air to save time.

The second Kern unit, of 120,000-kilowatt capacity, went into operation on January 17, 1950. The total cost was $30,500,000.

ANOTHER major new source of power after the war was at Station P steam plant in San Francisco, on the shore of San Francisco Bay. The original installation was a Great Western Power Company project dating back to 1929, just before PG&E acquired the Great Western system. Ground was broken for two additions in July of 1947. The first new unit started operation on December 12, 1948, and the second on January 25, 1949, providing a total of 220,000 kilowatts of added capacity.

On the hydro side, PG&E has added 343,600 kilowatts in postwar developments on the Mokelumne, Yuba, and Feather rivers, including 341,000 in six new projects and 2,600 in minor plant changes.

Three separate projects on the Mokelumne brought this river in California's

"Mother Lode" gold-mining country to its rightful importance as a producer of power. It now has four generating plants with an aggregate capacity of 206,000 kilowatts. The postwar additions are Electra, 92,000-kilowatt capacity, placed in service August 1, 1948; West Point, 15,000 kilowatts, December 31, 1948; and the Bear river unit addition to the Salt Springs powerhouse, adding 29,000 kilowatts, March 31, 1953.

THE Bear river unit has some unusual aspects. When Salt Springs powerhouse was built in 1931 on the upper Mokelumne, space was provided for another generator to be operated by water from the Bear, a tributary of the larger stream. Work started on this project in July of 1949. A new reservoir was created by two rock-fill dams at 5,800-foot elevation on the Bear, and the stored water was carried to the penstock head through a 2½-mile-long tunnel, thence into the penstock pipe extending 4,700 feet down the mountainside to the new Salt Springs generator.

Thus Salt Springs gained novel status, since the first of its generators is driven by water from the Mokelumne, and in the second by water from a different river —the Bear. Also, the water wheel for the new generator is the first of its kind installed by PG&E—a vertical shaft machine operated not by one nozzle but by three, spaced around the wheel to give higher efficiency.

The new Colgate powerhouse on the Yuba river is linked with California's early power history. The first Colgate, built before the turn of the century, was the third project of Eugene J. de Sabla, Jr., John Martin, and Romulus R. Colgate during the early years of their hydroelectric pioneering. It made news when it transmitted its power 61 miles to Sacramento and 142 miles to Oakland in 1901, long-distance records at the time. Fire partly destroyed the old structure on September 13, 1946, but it continued in operation at a reduced level until it was shut down in 1948. The new Colgate, of 25,000-kilowatt capacity, took over on June 13, 1949.

THE Feather river, one of California's most beautiful streams and a first-class producer of hydroelectric power, gained 180,000-kilowatt capacity in 1950, with completion of the Cresta powerhouse, 70,000 kilowatts, and Rock Creek powerhouse, 110,000 kilowatts. It is marked for still further development in the "after 1955" program, when the Butt valley, Caribou No. 2, Belden, and Poe projects will add 364,000 kilowatts more.

Other works, now under construction or on the drawing tables for future

¶ *" . . . the agency which has been most directly affected by the tremendous and now historic growth of the West since the outset of World War II is probably the Pacific Gas and Electric Company. The utility may be called the weather vane of the 'Great Migration' which has almost doubled California's population since 1940 and will probably add another 2,000,000 or more by 1960."*

accomplishment, include three new Pit river powerhouses, the 300,000-kilowatt capacity Morro Bay steam plant and the 50,000-kilowatt Humboldt Bay steam plant, the Kings river projects, and little Murphys, in Calaveras county, replacing historic Old Murphys which furnished power for the Utica Gold Mining Company mines in the Mother Lode.

THE PG&E postwar record may well be rated high as an instance of private capital and private individuals facing up to a big task and bringing it through to accomplishment—managing, in the process, to pay dividends as usual. From storm-wracked Donbass at Eureka and little 3,800-kilowatt New Murphys in Calaveras county, to the huge Pittsburg setup and broad-scale Feather river hydro additions, the company has not only kept up with the West's development but has helped to make it possible.

In brief, the over-all PG&E expansion picture is shown in the table on page 219.

Issue on the Snake

"THE *Hell's Canyon issue no longer is an honest appraisal of two power projects for their physical and economic values, but is, rather, a political debate over whether this government shall continue to build and operate public utilities when private capital is prepared to do the job.*

"One of the arguments of the federal high dam philosophy is that private enterprise can't build projects on the scale financed by the federal government.

"We will agree that private enterprise WOULDN'T *spend that kind of dough. But* CAN'T *is another matter.*

"We don't believe private capital would build a dam with marble-lined corridors, neon-lighted exhibit rooms, and all the other fancy trimmings to be found at Bonneville and, more especially, Grand Coulee, to accommodate sight-seers and make the taxpayers think they got something for their money.

"When private corporations undertake a huge project they . . . get their money from the people who have it and who can afford to invest it. They spend it as efficiently and as economically as possible, leaving latitude for profit, after payment of taxes.

"The federal government also goes to the people . . . for money. It doesn't give the people a chance to say whether they do or do not want to invest. It pays . . . no taxes.

"The outcome of the Hell's Canyon case will determine whether we shall have the right to make our own investments, or whether we shall continue to have our money invested for us at the whim of a bloated bureaucracy."

—CHARLES V. STANTON,
Editor, News-Review, Roseburg, Oregon.

Where Jobs Get into No Man's Land

What do employees think about the company, their pay checks, supervision, promotions? The secret opinion poll, taken by an outside agency, discloses valuable management facts. This is a story of a checking operation of the popularity of a utility company's management with its employees. It contains some surprises, but on the whole the results were reassuring as well as provocative.

BY JAMES H. COLLINS*

HERE is a story that shows how formidable a thing a "job" has become in recent years, through protective legislation, collective bargaining, the hiring and promotion systems that have been developed, with employee relations activities, and all:

A utility company employee lost the sight of one eye through a street accident not connected with his work. He sued the outside corporation at fault, and secured substantial damages.

*Professional writer, resident in Hollywood, California. For additional personal note, see "Pages with the Editors."

His own company then put him on pension, for though he had not reached retirement age, he was now totally blind. Sight in his other eye had been destroyed during an accident when he was working for another utility company, nearly forty years previously.

At that time there was no state accident compensation, nor any company insurance. When he was well enough to work again, the company gave him back his old job. His spectacles had been smashed in the accident. The company bought him some new glasses.

Those were the days when the foreman went to the factory gate and picked new hands for their muscle—and maybe their weak heads.

Gone forever—nowadays the job applicant undergoes batteries of tests, submits to quizzing in interviews, and it is hoped that, when hired and assigned to a department, he will cast his fortunes with the company until retirement, for the sake of his accumulating experience.

The company has an investment of from $500 up in the training necessary for his job, plus investment in the equipment and tools needed for his work. A utility company may have $50,000 plant investment. For any reason, he may quit in a few weeks.

Then, there are life and health insurance, sick benefits, retirement plan, accident and unemployment protection, social security, and "fringe" features to the job, so intricately wrapped up in various paycheck deductions that the employee does not always know who is paying for what. He does understand the new kind of wages called "take-home pay."

Altogether, the company and the worker have a gilt-edged investment in each other. Through misunderstandings of various kinds the gilt is apt to tarnish. There are details that employees do not understand, though management assumes that they are simple to grasp, and that self-interest will lead workers to find out what is what.

There is a sort of "No Man's Land" in company-employee dealings, quite outside of collective bargaining, and to obtain information in this area, the employee opinion poll has been developed, conducted by an outside agency. This may be a college, or a private poll organization. It helps frame the questions to be asked, assures the secret and detached character of the poll, presides at meetings of employees filling out the quiz papers, tabulates the results like those of an election, makes reports to employees and company, and destroys the papers, which have been seen by nobody else.

This procedure dampens down all the doubts that might arise if the company did the job—"What's the Old Man up to now?"

One of the first surveys of this kind was taken by professional opinion researchers, for a corporation that had taken over the management of a branch plant, formerly run by outsiders.

What did employees think of their new bosses?

The way employees answered, and the nature of the information, were so surprising that the results were given them, though originally the purpose had been only to obtain management guidance. Employees said they liked the new "brass," but criticized company benefit plans, partly because they did not understand who paid for what. They thought promotion went by favoritism, and that the company was "cagey" about its policies.

Employee opinion polls are now being used by hundreds of business concerns, with such satisfactory results that frequently a company will take a second and a third poll, later on, to disclose changes in employee opinion after management has adopted suggestions.

Outside poll agencies are found in most sections of the country, college and pri-

vate. The technique has proved useful to small concerns as well as large corporations, including utility companies.

This kind of poll is very flexible. It will bring out feelings about the cafeteria, or uncover the true state of affairs in a danger spot—for example, how wages compare with those paid by other companies in the community, or in the same industry.

Management may feel happy about the company cafeteria, because it was put in when workers were found lunching at hot-dog stands, or eating out of boxes in corners. Management runs it at a loss, feeling that it is an investment in employee welfare.

But an opinion poll may show that many employees never eat in the cafeteria. They comment on the cooking, the menus, the service, the prices. Food is always something to scrap about. Management learns that it is a good boss to work for, but that its cooking is terrible.

The final results from an opinion poll will have unpleasant as well as pleasant information, but the unpleasant opinions may be most useful to management, and the fact that such a poll is authorized indicates that "brass" is prepared to take it.

THE conditions existing in the No Man's Land explored by an opinion poll were shown in results from a recent survey, made by the industrial relations section of the California Institute of Technology, for the San Diego Gas & Electric Company. Questions were framed so an answer could be checked off ballotwise, and after this part of the questionnaire had been covered, employees were asked to write comments and suggestions—one of the most interesting features of such a poll.

These were the main matters explored:

What do you think of this company, to work for, and its management?

Between half and three-fourths of employees thought the company was as well managed as most others; that it stood well with the public. They were proud to say that they worked for this company; if starting out all over, they would want to hire out to it again.

But not so many employees felt that top management was aware of their individual work problems, nor did they know how to reach management.

This led the company to look into its employee communication channels.

HOW *do you learn about company affairs—and how would you prefer to get information, and what kinds?*

Information reaches employees through bulletin boards, the employee magazine

¶ "EMPLOYEE *opinion polls are now being used by hundreds of business concerns, with such satisfactory results that frequently a company will take a second and a third poll, later on, to disclose changes in employee opinion after management has adopted suggestions. Outside poll agencies are found in most sections of the country, college and private. The technique has proved useful to small concerns as well as large corporations, including utility companies."*

News Meter, in group meetings, talks with supervisors, letters from management, the annual report, news releases to local daily papers, and so on. Bulletin boards, the employee magazine, and talks with supervisors were named as the principal channels. But group meetings stood highest as preferred channels, with supervisors, management letters, and bulletin boards after that.

One employee in three stated that his company information came chiefly from other employees—the shop "grapevine."

Employees said they would like to know more about company expansion plans, financial problems, and public standing; about promotions and personnel changes; about the work of departments other than their own. There was also an interest in the American business system, how it operates.

Steps were taken to hold more group meetings for the information of employees, and to publish more departmental information articles in the magazine.

How *do you feel about wages—are they in line with pay checks received by people in other San Diego business?*

In percentages, the answers added up: lower 62.5 per cent, about the same 33.7 per cent, higher 2.7 per cent, no answer 1.1 per cent.

Employees were also asked whether they thought their pay was in line with rates for other company jobs, and answered: My rate is lower 49.2 per cent, in line 48.6 per cent, higher 0.9 per cent, no answer 1.3 per cent.

The pay check of a fellow working for some other company may seem higher, until deductions are looked into, and then the take-home pay may be no more.

But management assured employees that it would restudy jobs, and did find a few out of line, and due for correction. Jobs affected by union contracts are paid on scales worked out with the union, and those not affected by the union have been determined by a job evaluation plan.

In many industrial communities nowadays, wage and salary surveys have been made by employers. "Cal-Tech" has developed a conference technique for such surveys, less cumbersome than the customary questionnaire method. Undoubtedly, employees would be interested in the results of such surveys, comparing their pay checks with those received in other local business.

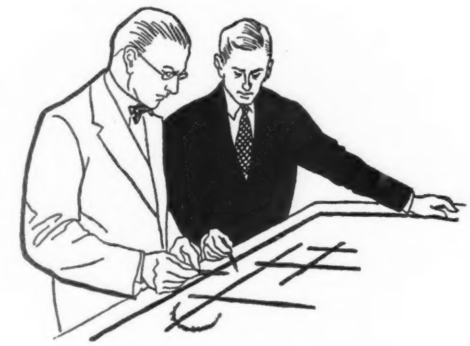
Do *you feel that this company gives job benefits as good as those provided by other San Diego concerns, and by other California utility companies?*

The company's principal benefits include group life insurance, health insurance, disability compensations, pensions, vacation, sick leave, and holiday plans. There is an employee credit union, and an employee association.

Employees felt that benefits were as good as those provided by other companies (52.5 per cent), or better (36.7 per cent); voting not so favorable 9.2 per cent, and no answer 1.6 per cent. Benefits are even more complicated than wages when it comes to comparisons, but everybody had formed some kind of conclusion, and the general feeling was that benefits were all right.

The San Diego Company was prompted to compile new pamphlets on its benefits. Utility companies stand well in benefit plans.

WHERE JOBS GET INTO NO MAN'S LAND



Jobs Aren't Getting Easier

"THE job! How formidable it has become in the past twenty years, and how much more complicated it appears to be getting—step into the pay-check department and see for yourself. Just lately, the company psychiatrist has appeared in several large manufacturing organizations, and is probably—as Mortimer Snerd said of women—here to stay, because he is delivering values that business can afford to buy."

Do you feel that promotions are made fairly, on ability?

Answers brought out the over-all opinion that promotions went to the best qualified persons, but some workers felt that favoritism entered into selections for the step up, and also that the company sometimes went outside to fill supervisory positions, instead of promoting from within. Management's conclusion was that methods of making promotions were not well understood, and the subject has been earmarked for discussion and explanation in group meetings.

SUPERVISION *and training.* Do foremen and other supervisors let employees under them know when their work is good; give them credit with higher-ups; deal fairly with different individuals; show care for their safety; keep them posted on their duties and responsibilities?

Supervision differs between supervisors. The general trend of answers to these questions was that the company has a large number of good "straw bosses," and that there was room for improvement in some respects. Better than four out of five employees said they felt free to go to their supervisors with job complaints, indicating that company instructions to supervisors, to discuss job problems with employees, were being followed.

Do employees feel free to discuss personal problems with their supervisors? In about half the answers, they do feel that way. Personal problems are not so often discussed with others, but they directly affect working efficiency. This company's supervisors were given an excellent score.

Job training was considered helpful by

older employees, who had seen it work out in results for themselves. The company is taking steps to explain job training more fully, and emphasize its bearing on promotion.

THESE were the questions that could be checked off with a pencil mark. The quiz papers were filled out at 42 different employee meetings, held during working hours, on company time, the largest attended by 236 employees, the smallest by three people at a branch office. One meeting for employees more at home in Spanish was presided over by a Spanish-speaking draftsman.

Each meeting was presided over by a "Cal-Tech" and a company representative. The purpose and secrecy of the survey were explained. Questions covered some personal matters, by which identification of individuals might be possible, such as age, length of service, department, and compensation. There was no apprehension about secrecy, and "Cal-Tech" rated this poll as notable for the small number of skipped questions and "no answers." At meetings, 2,197 papers were turned in, and 122 more came by mail from absentees.

Nine in every ten employees wrote comments, a high percentage, and of high quality. This volume of comment, which would take several days for reading by one person, and then be of little value without classification, was handled by an interesting plan.

Employees wrote on 175 different subjects capable of classification.

No generalization was made of subjects, each criticism, favorable comment, or suggestion being copied out separately and assigned to one of nine classifications.

COMMENTS were also broken down into favorable (3,749), unfavorable (3,380), and suggestions (1,920).

They were then punched in cards for business machine sorting and study. The results, together with the unidentified typed comments, were delivered to management.

Job satisfaction led with 22 per cent of comments, followed by security of employment and the character of the company, in favorable opinions. Lack of opportunity for advancement and of individual recognition of work, were most often mentioned in unfavorable comments. Specimen comments were published in the report to employees.

"Ami me gusta trabajar en este compañia porque es un trabajo constante," wrote one Spanish-speaking worker—he likes to work for that company because it's a steady job.

"Cal-Tech" has conducted similar polls for the Southern California Edison Company, Standard Oil Company of California, the Carnation Company's headquarters in Los Angeles, the Los Angeles *Times-Mirror,* and others.

The industrial relations section, under Robert T. Gray, director, assigned L. R. Sorensen and G. M. Jordan, of that section, to conduct the San Diego poll, in co-operation with Maxwell E. Nelson, director of the company's industrial relations. Credit for the gratifying results belongs to the industrial relations men for their experienced handling of details, and to the keen interest of top management—L. M. Klauber, then chairman of the board of the utility company, E. D. Sherwin, president, H. A. Noble, vice president in charge of operations, and H. G. Dillin, now executive vice president.

In supervising these employee opinion polls, the institute assists in the development of the questions; sends its representatives to the employee meetings held for filling out the questionnaires; collects the papers in its own ballot boxes; tabulates the results; prepares reports to management and employees; and finally sees that the papers are destroyed. Nobody connected with the company had a hand in the actual poll, apart from attending the meetings, but top executives and a dozen or more accompanied the "Cal-Tech" representatives, introducing them to employees, and stressing the impartial nature of the poll.

Costs for such a poll include direct labor, materials, and similar expenses incurred by the institute, plus $400. The average is from one to two dollars per employee, according to the number of employees, the number of questions asked, and the tabulations. There are additional costs to the company in arranging employee meetings, and in working time—about one hour per employee is spent at meetings.

The institute is limited in the number of polls it can undertake, by its personnel available for that purpose.

Most polls are planned to obtain three kinds of information:

1. To find out how much people know about their jobs, about the company, and the American business system. What other information they would like to have, and through what channels. The opinion poll does not interfere with other channels.

2. To give management an audit or inventory of its policies and procedures, a basis upon which to make necessary changes.

3. To aid in developing a program of supervisory training, determining the subjects to be covered, and the departments where training is needed.

"Cal-Tech" has a twofold interest in these polls. First, its industrial relations section is maintained to be of service to business concerns and their employees, to the end of improving human relations in industry. And, second, the institute has a long-range interest in poll data, using it in fundamental research into the nature of employee attitudes and opinions.

This research involves no violations of secrecy.

This section provides a variety of service for business, labor, and the public. It has a large group of co-workers and sponsors, with a library specializing in employee relations material. Its broad objective is the improvement of personnel management, through recognition of the

¶ *". . . nowadays the job applicant undergoes batteries of tests, submits to quizzing in interviews, and it is hoped that, when hired and assigned to a department, he will cast his fortunes with the company until retirement, for the sake of his accumulating experience. The company has an investment of from $500 up in the training necessary for his job, plus investment in the equipment and tools needed for his work. A utility company may have $50,000 plant investment."*

individual employee, justifiable compensation, competent supervision of people in their work, and effective communication between employees and management.

In matters of compensation, it conducts wage and salary surveys in communities where they do not conflict with investigations already in progress, using its conference method, which is a sort of streamlined technique to facilitate gathering such information.

In matters of supervision, it takes employee polls, and conducts meetings for discussion and practice of techniques.

For the improvement of communications, the information obtained in polls is utilized, and methods are explained in meetings.

The job!

How formidable it has become in the past twenty years, and how much more complicated it appears to be getting —step into the pay-check department and see for yourself.

Just lately, the company psychiatrist has appeared in several large manufacturing organizations, and is probably — as Mortimer Snerd said of women — here to stay, because he is delivering values that business can afford to buy.

He is a specialist in mental health.

He points out that stomach ulcers are no monopoly of Hollywood producers, or corporation executives—the floor sweeper may have them, as a result of similar worries and frictions.

Mental health among employees means more and better production.

It can cut accident rates.

It improves the relations of people working with each other, and under supervisors.

That shows up in costs by reducing employee turnovers.

And various other desirable results the psychiatrist enumerates, with or without couch.

It sounds much like the No Man's Land explored by the opinion poll.

The psychiatrist may be the next specialist on the job.

Importance of the Over-all Picture

"It would be rare indeed to find business good in all lines at the same time. In an economy as large and varied as ours some lines are bound to be down while others are up, reflecting changing supply and demand in individual situations, shifting consumer preferences, and differences in managerial ability and skill in adjusting to technological change and new market conditions.

"The main thing is in maintaining a general state of over-all balance between the various economic groups at a high level of production and employment. Thus adjustments can proceed in orderly fashion, as by and large they have done since the end of World War II. The developments of the past month encourage hope that adjustments now going forward can be taken equally in our stride."

—Excerpt *from Monthly Letter on Economic Conditions, published by The National City Bank of New York.*

OUT OF THE MAILBAG

On the New Format

CONGRATULATIONS on your twenty-fifth anniversary issue! I have most of them from No. 1.

Mr. Spurr's article interested me very much, and I found Colonel Bennion's piece *delightful reading,* since I have lived through the 1879 conditions he very accurately describes. I look forward with interest to your 1954 forecast, which I have always enjoyed because of their absence of bunkum. It pleases me greatly to think our "private relations" are so pleasant after twenty-five years.

—JUDSON KING,
Managing director, National Popular Government League, Takoma Park, Maryland.

TODAY I received my regular copy of PUBLIC UTILITIES FORTNIGHTLY in its new "Twenty-fifth Anniversary" shape and style. I congratulate you and others in your organization on the new setup. It is handier than the old-style volume, better margins and other arrangements.

I am sure that you know I have always appreciated your fine magazine and have read it continuously since the first issue.

—F. V. RHODES,
Secretary, California Independent Telephone Association, Santa Monica, California.

THANK you for the kind note accompanying the copy of FORTNIGHTLY's Silver Anniversary issue. This is a memorable milestone, both for the very splendid publication and for you of its staff to whom great credit is due.

I count my friendly acquaintance with you and your editorial associates a very special privilege and feel specially honored to be among your contributors.

—SAMUEL H. CROSBY,
Oil and gas consultant, Arlington, Virginia.

I WANT to offer a word of praise with respect to the new format of the PUBLIC UTILITIES FORTNIGHTLY. I think it is a very distinct improvement.

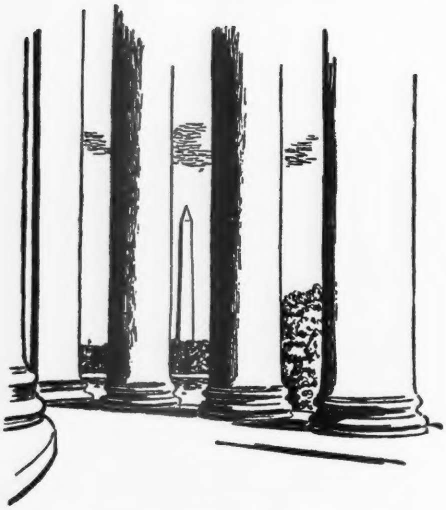
—RUPERT E. SHOTTS,
Chicago, Illinois.

Atom Plant Costs

I HAVE just gotten around to reading the November 19th issue of PUBLIC UTILITIES FORTNIGHTLY and was quite interested in your article on page 780 under the heading "Washington and the Utilities—Uncle Sam's Atom Power Plant." In the last paragraph of the first section of this article you are commenting on the probable cost of the nuclear plant and making a comparison with the cost of a conventional power plant, which you state to be "$75-$100 per kilowatt." The figure of dollars per kilowatt has long been a controversial issue in the industry and depends on the proper interpretation of many factors.

However, in the light of present-day costs, the most optimistic figure being currently used is about $150 per kilowatt and many of our present-day plants are actually running up to $200, plus, per kilowatt. The use of the figures which you have quoted in your article is certainly misleading and badly distorts any comparison that one might make with the "estimated" cost of an atomic plant.

—C. L. DERRICK,
Vice president, The Hartford Electric Light Company, Hartford, Connecticut.



Washington and the Utilities

Turning the Heat off Gas Bills

THE U. S. Supreme Court's decision to review the Phillips Petroleum Case is expected to relieve tension rather than indicate any sudden reversal of viewpoint on the highest bench. Of course, the chances have improved that the court will finally reverse the U. S. District Court of Appeals and reinstate the FPC order declining to take jurisdiction over the independent gas producers.

But such a development is still only a chance, according to the unofficial viewpoint expressed among Washington lawyers familiar with the controversial litigation. It is pointed out that the court might have been persuaded to change its own mind about reviewing the Phillips Case on the basis of pleas by natural gas producers and producing states and the Federal Power Commission that its abrupt denial of a review could lead to a confusing if not chaotic situation.

It had been contended in the arguments for granting the review that these parties were entitled to a clarifying decision eliminating uncertainty as to just what they were supposed to do, even assuming that it was finally decided to require the FPC to go ahead and exercise jurisdiction over the gas producers.

Certainly, Congress welcomed the respite which the pending review gives it in voting on amendatory legislation which would be almost certain to be urged by members from gas-producing states as an alternative to the Phillips decision. When the final decision will come along is vague. The court does not ordinarily pass on cases during the term upon which argument cannot be concluded before mid-April or thereabouts. Even if the parties to the Phillips appeal can be heard by that time—a fair probability at this writing—the decision would not be likely to be released until just about the end of the term early in June. Obviously, this would be too close to the end of the session to permit the 83rd Congress to go into the matter. Both Democratic and Republican Congressmen seem satisfied to leave it at that, for the most part.

As for the Eisenhower administration, it would probably prefer that the U. S. Supreme Court take the responsibility if the gas producers are to be relieved of FPC jurisdiction, rather than let the issue

go into a divisive partisan battle in Congress. And if the court should hold to its earlier view by making the FPC go ahead with its jurisdictional chores, at least the elections next fall will not be out of the way before the matter could again go before Congress. The Eisenhower administration is caught in the middle between political obligations to gas-producing states (Kansas and Texas) and its ties with traditionally Republican gas-consuming states (Michigan and Wisconsin), which appealed the FPC decision in the first place.

Hinshaw Bill Chances Good

ADVOCATES of the Hinshaw Bill to relieve the FPC of jurisdiction over intrastate distributors are likewise relieved by notice of a pending review of the Phillips Case. Although the Hinshaw Bill deals with the other end of the pipeline and has passed through the House and the Senate committees, there was some fear of a last-minute attempt to tack a rider on it, dealing with exemption of gas producers from FPC control.

Such a thing could have so complicated the Hinshaw Bill as to scuttle chances of final approval at this session. But now the Congressmen from the gas-producing states have no argument about the urgency for such action, as long as it remains for the Supreme Court to say the final word for the judicial branch.

And what are the chances of the Hinshaw Bill? They still seem pretty good in the Senate if the bill can be brought to a vote. An early attempt to take up the matter by unanimous consent was blocked on opposition by Senator Langer (Republican, North Dakota). This puts the bill back on the Senate calendar of controversial bills. But the outlook is that it will be reached some time before the session narrows into the usual bottleneck for all legislation created by pressure for adjournment.

Power Project Budget

PRESIDENT Eisenhower asked Congress to appropriate $109,544,873 for construction work on flood control, rivers and harbors, and reclamation in the Missouri basin during fiscal 1955. The Army Engineers would get $74,893,873 of the proposed new money and the Bureau of Reclamation would get $34,651,000. The request for the Engineers is $2,454,967 greater than they got in fiscal 1954. The proposed money for the bureau is $10,083,412 less than it got last year.

The over-all request is $7,628,445 under what Congress voted last year. Former President Truman, who submitted the 1954 budget, asked for Missouri basin construction funds of $199,381,000 for the two agencies. Mr. Eisenhower did not ask for funds for any new projects in the basin, which comprises one-sixth of the United States.

The proposed Tuttle Creek reservoir in Kansas, which got $675,344 last year, got nothing in the 1955 budget. The project was scuttled in Congress last spring. The largest request was for $27,500,000 to continue work on the multiple-purpose Garrison dam in North Dakota. Garrison was the largest recipient last year, with an appropriation of $29,148,741. Other requests for the Army Engineers were:

Navigation projects — Missouri river: Sioux City, Iowa, to Omaha, Nebraska, $2,000,000; Omaha to Kansas City, Missouri, $3,300,000; Kansas City to mouth, $2,000,000.

Flood-control projects — Kansas City (Kansas and Missouri), $1,248,594; Missouri river agricultural levees, Kansas, Missouri, Iowa, and Nebraska, $1,186,207; Missouri river, Kenslers Bend to

Sioux City, Nebraska, South Dakota, and Iowa, $100,000.

Reservoir projects — Harlan county, Nebraska, $462,407; Fall River basin, South Dakota, $96,665.

Multiple-purpose projects, including power—Gavins Point, Nebraska, and South Dakota, $11,000,000; Fort Randall, South Dakota, $17,000,000; Oahe, South Dakota, $9,000,000.

The largest Bureau of Reclamation request was $13,005,000 for the power transmission program in Wyoming, North Dakota, and South Dakota. The money also would help pay for preliminary engineering, surveys, and investigations for development of the transmission system consistent with market supply and demand. Necessary substation additions and facilities to serve REA's and other customers will be made as required.

MAJOR portion of construction funds in a requested $36,800,000 budget for the Bonneville Power Administration during fiscal 1955 will apply toward completion of transmission lines and substations already approved by Congress and under construction, William A. Pearl, Bonneville Administrator, said recently.

The proposed construction funds of $30,200,000 represent a reduction of $8,666,000 from current year appropriations, while requested operations and maintenance funds of $6,600,000 reflect an increase of $596,000, it was pointed out.

Transmission lines and substations already approved and under way include grid facilities from Grand Coulee and Chief Joseph dams to the Puget Sound area, and from McNary dam to the Walla Walla, The Dalles, and Willamette river area. Other funds will provide for start of 230,000-volt transmission facilities from Oregon City to Chemawa, Oregon, facilities to serve Lewis county and the Frenchman Hills, which are in Washington, and service to new or increased load areas.

Nine Companies and the Colorado

NINE western power companies told Congress last month they are willing to invest $125,000,000 if they are included in a plan for development of the proposed $1 billion Colorado river storage project. D. D. Moffatt, assistant vice president of the Utah Power & Light Company, Salt Lake City, speaking for the private utilities, presented a 6-point plan at a hearing of a House Interior subcommittee. The plan calls for:

1. Federal construction of holdover reservoirs and power plants.
2. Federal construction of the backbone transmission tie line connecting major power plants such as Flaming Gorge, Echo Park, and Glen Canyon.
3. Use of the power companies' existing transmission lines, and construction by the companies of new lines from the project plants or project interconnecting transmission tie lines to the load centers of their respective systems as may be required to market the power. But the government would build the lines to load centers not within the companies' general service areas.
4. Contracts with the private companies to deliver the power to preference customers at "reasonable transmission charges," or contracts with the private companies directly with preference customers to supply all their power needs.
5. Federal power not contracted for by preference customers would be sold to private companies under terms assuring that the cost will not exceed the cost of power from alternate sources.
6. Rates charged by the private companies would be subject to state regulation.

Wire and Wireless Communication

REA Emphasis Turning to Phones

THE Rural Electrification Administration may eventually be known as the Rural Telephone Administration if the trend toward larger appropriations for the rural telephone program continues. In his budget for fiscal 1955, President Eisenhower asked for more funds for REA's phone program—$75,000,000—than for rural electrification loans—$55,000,000—plus an additional contingency fund of $35,000,000. The electric program will also have carry-over funds amounting to $45,000,000, and an additional $5,000,000 in rescissions. The $75,000,000 for the telephone program represents a 10 per cent increase over the $67,500,000 appropriated for the current fiscal year. Only $592,000 is anticipated as carry-over in this program.

The shift of emphasis towards rural telephone loans has, of course, been noted over the past three years. But the annual amount of new rural electrification loan appropriations has heretofore been so large as to obscure the steady increase in telephone loan funds. Now, for the first time since REA began its telephone program, that aspect of the agency's activity will be in the ascendancy as far as new loan appropriations are concerned. If the "Carry over" log in electrification funds available continues as large or larger next year, compared with the current fiscal year, REA's main interest will be in the telephone business. This switch in REA interest will have some important implications to the telephone industry. It means that a majority of REA employees must henceforth be trained to devote a greater part of their activity towards the spread of farm telephones. It should be remembered, however, that the law controlling rural telephone loans is different from the rural electrification part of the REA Act. The law requires REA to deal with those furnishing existing telephone service and to avoid duplication if possible.

If the President's recommendations are approved, REA's administrative staff would be held at about the present size. For administrative purposes, the new budget calls for $7,085,000. This provides for an average of 965 employees, twenty less than the present staff.

Employees Mobilized to Support Rate Increase

THE New York Telephone Company is placing great emphasis on the part its employees can play in drumming up public support for the company's request for

a $68,850,000 rate increase—the largest rate case ever to come before the New York Public Service Commission. Keith S. McHugh, president of the company, urged employees to help convince the public of the company's needs by "talking it up" to their friends and neighbors. In an interview in the company's magazine, McHugh said, "For one thing, to the average customer, the employee he meets or talks to for any reason *is* the telephone company. To that customer the employee's voice is the voice of authority on company matters, and he will ask his questions of the employee he knows or meets."

As proof of the value of employee relations with the customer, McHugh pointed to a chart showing that customers whose telephone friends talk to them about the business "have a far more favorable attitude toward us than do those whose telephone friends don't talk about the business, or than those who do not know any telephone people at all." The company has stressed that its case before the commission is as important for employees as customers.

"There can't be any question but that working for a successful company is a lot more fun and has the possibility of a lot better rewards than working for one that is badly bent or busted," McHugh said. "In the long run the life of an employee—whether at craft or management level—who works in a growing, expanding, and successful outfit dedicated to public service, can be a productive and satisfying one, and we know that is good."

The company is seeking an increase of about 10 per cent in its rates. This would involve adding about 75 cents a month to a residential customer's bill and $2 a month to a business customer's bill. The company claims that its operation costs have risen 2.7 times since 1940, while revenues were up only 2.2 times.

Excise Tax Cut Proposal Gaining Support

TREASURY officials are reported to be showing increasing concern about the way tax legislation is shaping up in Congress. Their major worry seems to be that Congress will cut excise taxes on some items, including telephone bills, far more than they think the government can afford at the present time. The concern about excise cuts stems from the strong support in Congress for a proposal advanced by House Speaker Martin (Republican, Massachusetts). Martin, in a surprise proposal, said all excises above 10 per cent should be brought down to that level, except for liquor and tobacco, and he was promptly supported by some Democrats and Republicans on the House Ways and Means Committee.

Congressional authorities estimated the proposed cuts would reduce revenue by $942,000,000 a year at current sales levels. However, Speaker Martin said increases in sales and employment under the spur of such a tax reduction probably would prevent any actual revenue loss. He declared excise rates above 10 per cent are "exhorbitant" and are injuring many industries. Although he does not expect the administration to propose any excise cuts, Martin hoped the financial situation would be such that the administration would not fight such a move by Congress "when the time comes."

Martin's proposal would lower to 10 per cent the present 20 per cent tax on furs, jewelry, cosmetics, luggage, women's handbags, movie and other admissions, etc., and would also apply to local telephone calls, domestic telegrams and leased wires, and personal transportation, all taxed now at 15 per cent. It would slash the long-distance telephone rate from the present level of 25 per cent.

President Eisenhower, in his annual

Budget Message, did not propose any excise changes and asked Congress to cancel one billion dollars in excise cuts set automatically under present law for April 1st. Any cuts by Congress, the President said, should be offset by increases so that overall revenue from the excise field is maintained at the present levels of $10 billion annually. Representative Kean (Republican, New Jersey), usually an administration supporter, said Martin's proposal was "a good objective if the financial situation will permit." He predicted congressional approval "if the administration doesn't oppose it very vigorously." Representative Eberharter (Democrat, Pennsylvania), another Ways and Means Committee member, foresaw widespread Democratic support.

New Phone Tax Proposed in New York

WHILE Congress was preparing to debate possible cuts in federal excise taxes, New York city's Mayor Wagner and his cabinet went into a huddle over a proposal to stick a $2-a-year tax on the city's telephones to help finance an expanded housing program. The imposition of the $2 tax, with the proceeds to be earmarked for housing, was recommended in a report prepared by the City Planning Commission. It would require amendment of the Public Housing Law, which now permits the city to levy a telephone tax of not more than 5 cents a month, or 60 cents a year, on each instrument.

New York's newspapers have not greeted the proposal with much enthusiasm. "Such a tax is plainly an annoyance to the whole community," complained the *Herald-Tribune,* and added: "We don't like it." A spokesman for Mayor Wagner said a tax as high as $2 a year was unlikely and said that if it should be decided to impose any telephone tax, it was not likely to exceed the 5 cents a month maximum now allowed.

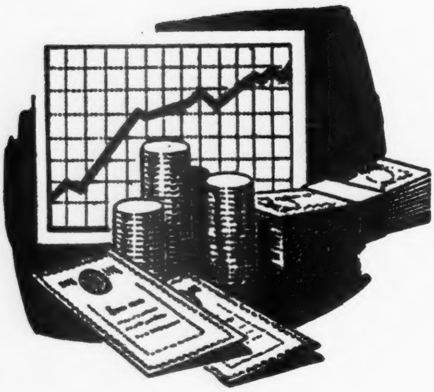
FCC Proposes New Fees

THE Federal Communications Commission proposes to charge radio and television broadcasters, electronics manufacturers, radio operators, and telephone companies fees ranging from $3 to $1,500 for applications for government licenses and authorizations. The proposal was in line with a Budget Bureau directive last year that all government agencies issuing licenses set fees to cover service cost.

Under the proposal, the FCC would charge $150 for applications to build or extend telephone lines and for applications by all common carriers for certain exemptions from commission jurisdiction. For applications to acquire or consolidate telephone companies, $350 would be charged.

Senate Confirms Lee for FCC Post

THE nomination of Robert E. Lee for a 7-year term on the FCC was approved in the Senate last month by a vote of 58-25. Although some opposition had been foreseen, the size of the vote against Lee came somewhat as a surprise to many observers. His confirmation had been recommended by an 11-to-1 vote of the Senate Interstate Commerce Committee, the only dissenter being Senator Monroney (Democrat, Oklahoma). Monroney based his opposition to the nomination on grounds that Lee, whose experience has been largely in the accounting field, was "not qualified" for the job. The Oklahoma Senator won the support of twenty-one other Democrats, Morse (Independent, Oregon), and two Republicans, Senators Aiken of Vermont and Smith of Maine.



Financial News and Comment

BY OWEN ELY

Advantages of Utility Holding Companies

JOHN F. CHILDS, vice president of the Irving Trust Company, recently acted as chairman for a group of some forty security analysts who visited the offices of five electric utility holding company systems in the financial district. This "field trip" was part of the general program of the Third Eastern Regional Conference sponsored by the New York Society of Security Analysts.

The companies visited were General Public Utilities Corporation, West Penn Electric Company, Southern Company, American Gas & Electric Company, and Middle South Utilities, Inc. At each office the analysts were addressed by chief executives of the company, and further opportunities for exchange of views were afforded by the luncheon and reception.

Officers of these companies seemed confident that despite any moderate setback in business, they could maintain share earnings this year at about the same level as in 1953. A trend toward reduction of equity financing in 1954 was also indicated, thus avoiding dilution of share earnings. Some holding companies are arranging to issue bank loans or do other debt financing this year as an alternative to equity financing. In the past the SEC has been opposed to such a policy (except in several cases where reorganization would have been impracticable without retaining holding company debt). Now, however, the commission is lightening this restriction, though it still does not favor holding company debt of a permanent or burdensome nature.

BEFORE the Public Utility Holding Company Act was enforced, holding companies controlled perhaps four-fifths or more of the electric utility industry; there were only about ten important utility operating company stocks in the hands of the public, plus a number of closely held issues of small local companies. It would be difficult to compile the exact number of holding company stocks held by the public, since this varied from year to year, but no doubt the list considerably exceeded the number of operating company stocks.

Now the situation is reversed. There are

DEPARTMENT INDEX

only about nine large, integrated holding companies, plus several which are still in process of conversion into investment companies (United Corporation, Electric Bond and Share, Standard Power & Light, International Hydro-Electric, etc.). The nine integrated systems include the five visited by the analysts, plus the two New England systems, Texas Utilities and Central & South West. These systems constitute nearly one-fifth of the electric utility industry in the United States. Whether any other major holding company systems can be created under present conditions seems a little doubtful, but the existing systems play an important rôle in the utility economy.

MR. CHILDS, in an introductory statement in connection with the tour, pointed out their advantages as follows:

1. Economy of operations through:

(a) Larger, more efficient units costing less per kilowatt to build and less per kilowatt-hour to operate.

(b) Timing and location of plant additions to obtain maximum benefits of fuel supply.

(c) Spreading engineering expense over several duplicate power units.

(d) Smaller reserve requirements.

(e) Use of most efficient generating plants.

(f) Savings in certain corporate and financing expenses.

2. Flexible, reliable, and high-quality power supply in the event of an emergency and outages for inspection and maintenance.

3. Advantages of diversification in the many factors which affect an investor's interest in a utility such as territory, load, regulation, etc.

4. Flexibility of financing through the many avenues available including the holding company as a vehicle for equity financing. The systems are thus able to gather the funds of many investors throughout the country and make them available to the local companies to help finance the ever-expanding demands of the territory.

5. Development of top management, who can cope with the many problems which arise in seeking to supply the consumers with the best and most reasonable service.

6. Consumers receive the closest attention through the local operating companies and benefit from the above advantages.

AS Mr. Childs pointed out, it has taken some time for the new holding company systems to become known to the broad mass of investors and for the prejudices arising from the financial abuses of the 1920's to be eliminated. Now, however, the utility holding company stocks have achieved a market position similar to that of the operating companies.

Forecasting Electric Power Growth

PHILIP SPORN, president of American Gas & Electric Company and considered one of the nation's leading electrical engineers, in a recent address before the New York Society of Security Analysts at the Downtown Athletic Club, gave a very interesting talk about the future potentials for the electric light and power industry and for his own company. In this connection a number of charts were presented, some of which are reproduced on pages 242 and 243.

Figure 1 gives three forecasts for electric power output fifteen years from now. The median forecast is 1,290 billion kilowatt-hours, which compares with about 400 billion in 1952. Figure 3 compares electric output and gross national product. Figure 4 shows the estimated gains in resi-

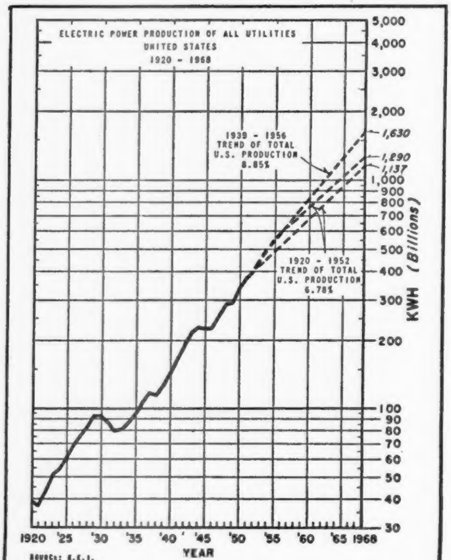


FIG. 1

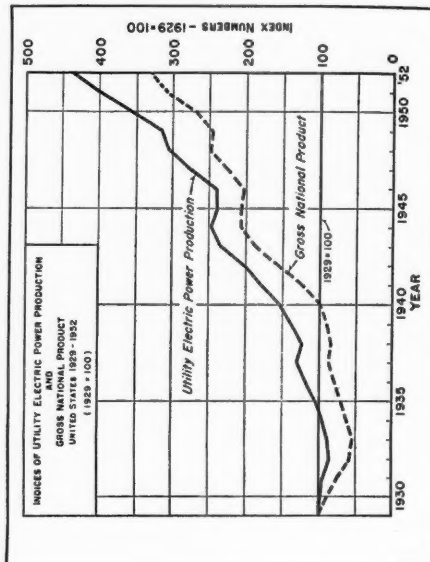


FIG. 3

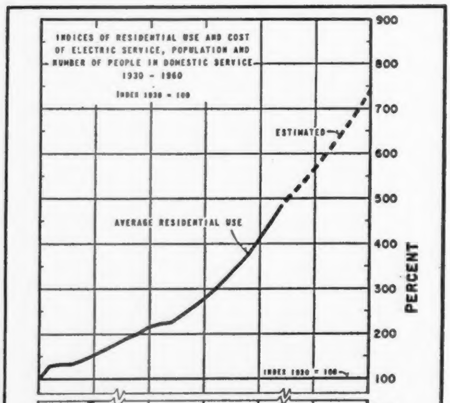


FIG. 4

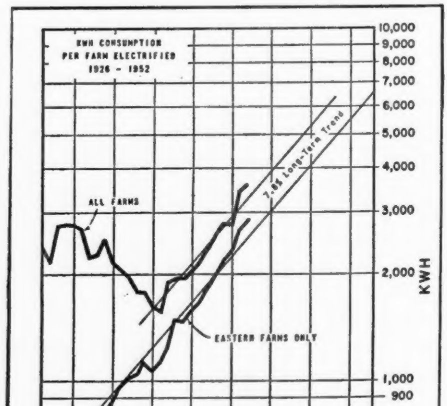


FIG. 5

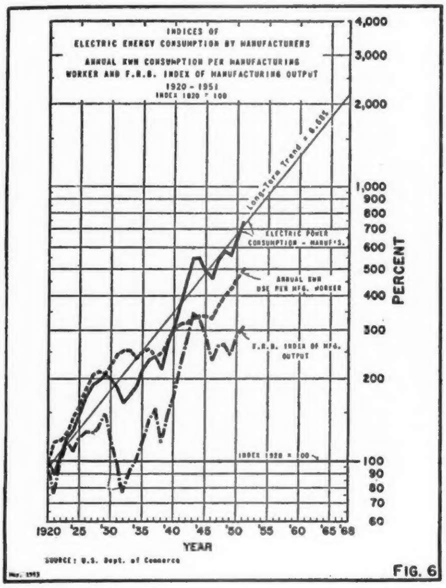


FIG. 6

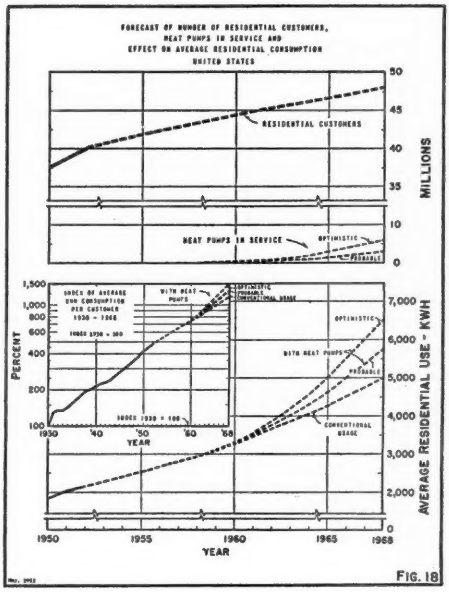


FIG. 18

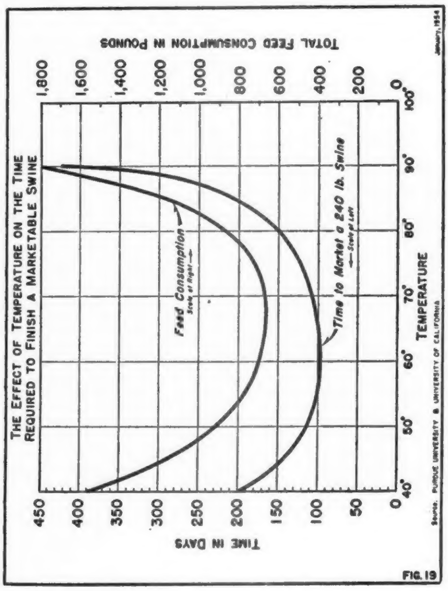


FIG. 19

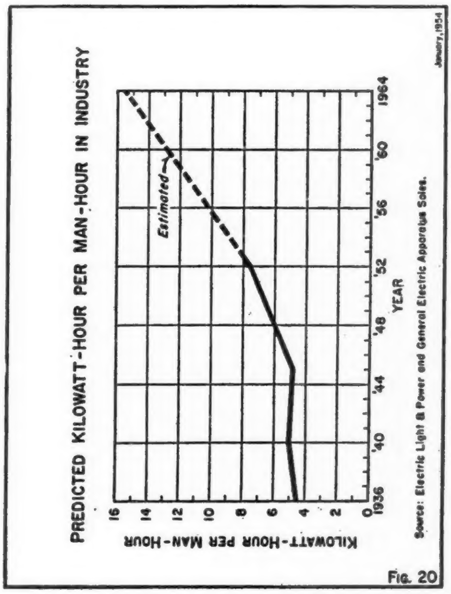


Fig. 20

dential usage, the lower part of the chart relating the heavier use of electricity to the declining number of domestic servants (as well as the lower cost of electricity). Figure 18 refers to residential consumption as stimulated in future by introduction of the heat pump for year-round heating and air conditioning. Figures 6 and 20 show the upward trend of industrial usage in relation to the FRB production index, use per man-hour, etc. Figures 5 and 19 are of interest to farmers—figure 19 shows how much more quickly a pig can be readied for market if its temperature is kept in a range of 60-70 degrees, presumably in an air-conditioned pen.

Excitement over the Atomic Battery

SOME investors in utility stocks were probably worried by the recent dramatic statement of David Sarnoff, chairman of the Radio Corporation of America, regarding the company's progress in developing an "atomic battery" powered by a small amount of strontium. The device was used to operate an old-fashioned telegraph key, Mr. Sarnoff tapping out the following message: "Atoms for peace—man is still the greatest miracle and greatest problem on this earth."

Investors were probably even more disturbed by the loose editorial comment on this development, which might have led the uninitiated to assume that utility generating plants will soon become obsolete. While Wall Street received many anxious inquiries, however, it refused to be stampeded into selling utility stocks. The new battery is powered with only half a milligram of strontium of atomic mass 90, a radioactive waste product of the nuclear reactor. This tiny bit of strontium is coupled with a transistor-like wafer made up of crystals of silicon. According to William L. Laurence, science reporter of *The New York Times,* each electron emitted by the strontium releases as many as 200,000 electrons in the wafer.

While the new battery is said to be one hundred times more efficient than any previously reported radioactive generator, however, its usable output of electricity amounts to only about one-millionth of a watt. Eventually it is estimated that this might be stepped up to ten times as much. Greater power could of course be obtained by placing a number of units in a single container, but the strontium for the battery as described would cost $25, which effectively limits current usage. The more immediate uses might be in connection with hearing aids, watches, tiny radios, signal systems and relays, etc.

COULD the new device eventually be used for powering all electrical appliances for the home? This seems highly improbable. The average household probably needs the equivalent of about one kilowatt or 1,000 watts available capacity, and probably more for peak loads. Thus, it would take about one billion of the batteries as described by Mr. Sarnoff to take care of the load requirement of the average house. Even if vastly improved, the new battery would seem to furnish only a small auxiliary supply of power, similar to that supplied by dry cell batteries.

It remains possible, of course, that some new means may be discovered in future of producing an electric current directly from the beta rays of an atomic reactor, instead of having to go through the heat-exchange cycle to produce steam, convert this into mechanical energy, and the latter into current through the generator. Even in such event, it seems probable that any device with adequate capacity would be too radioactive and dangerous for use in the home, but would find its proper place in the utility power plant.

A Questionnaire on Stockholder Reports

THE stockholders' reports issued by Citizens Utilities Company have received prizes in competition with other reports, for their excellent methods of presenting statistical data and their well-rounded discussion of topics of interest to stockholders. Evidently President Rosenthal is not content to rest on his laurels, as he has sent a questionnaire to stock-

JANUARY FINANCING

PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	*Amount (Mill.)*	*Description*	*Price To Public*	*Under-writing Spread*	*Offer-ing Yield*	*Moody Rating*	*Indi-cated Suc-cess Of Offer-ing*
		Mortgage Bonds and Debentures					
1/7	$43.4	Detroit Edison Conv. Deb. 3¼s 1969 ..	100.00	*	3.25%	A	—
1/8	35.0	Cons. Edison 1st 3⅜s 1984	102.77	.59C	3.23	Aa	b
1/13	20.0	Appalachian El. Pr. 1st 3¼s 1983	102.82	.50C	3.35	A	a
1/14	25.0	Public Serv. Ind. 1st 3⅜s 1984	102.63	.54C	3.24	Aa	a
1/21	20.0	Mich. Con. Gas 1st 3⅜s 1979	100.76	.65C	3.33	A	d
1/21	30.0	Ohio Ed. 1st 3¼s 1984	101.93	.59C	3.15	Aa	a
1/26	2.5	Otter Tail Pr. Conv. Deb. 4¼s 1964 ..	100.00	N	4.25	Baa	—
1/27	60.0	Northern Ill. Gas 1st 3½s 1979	102.00	.99N	3.38	A	a
		Preferred Stocks					
1/7	1.5	Central Ill. Elec. & Gas 4.80%	100.00	2.10N	4.80	—	a
1/14	7.0	Kansas City P. & L. 4.20%	101.00	1.75N	4.16	—	a
1/21	4.0	Iowa-Illinois G&E $4.22	100.00	1.85C	4.22	—	c
		Common Stocks—Subscription Rights				*Earnings-Price Ratio*	
1/8	25.0	Consumers Power	36.75	.17C	5.99	8.1	e
1/18	18.9	Ohio Edison	35.75	.12C	6.15	8.5	f
1/21	8.3	Northern Indiana Public Service	26.25	.39N	6.10	9.2	f
		Common Stocks—Offered to Public					
1/14	7.3	Kansas City Power & Light	32.50	1.03N	5.54	7.5	a

*Not underwritten. a—Reported well received. b—Reported fairly well received. c—Reported issue sold somewhat slowly. d—Reported issue sold slowly. e—Ninety-five per cent subscribed by stockholders with almost all balance taken by employees. f—Results not yet available. C—Competitive bidding. N—Negotiated underwriting.

JANUARY NEW-MONEY FINANCING
(In Millions)

	Offered to Stockholders	*Sold to Public*	*Sold Privately*	*Total Financing*
Electric Companies				
Bonds	—	$219	$13	$232
Preferred Stock	—	12	7	19
Common Stock	$52	7	—	59
Total	$52	$238	$20	$310
Gas Companies				
Bonds	—	$ 20	$11	$ 31
Preferred Stock	—	—	—	—
Common Stock	—	—	—	—
Total	—	$ 20	$11	$ 31
Total Electric and Gas	$52	$258	$31	$341

Source—Irving Trust Company.

holders containing five specific questions as follows:

1. Do you think our annual reports contain too much information or are too long?
2. What, if any, general categories of information are not included in our annual reports, which you would like to see treated in the future?
3. With reference to the front covers of our annual reports for the years 1952, 1951, and 1950, which cover did you prefer? Why?
4. Which of the following most influenced or was responsible for your decision to become a stockholder in Citizens Utilities Company. (Rank in order of importance if more than one.)
5. Which of the following most influenced or has been responsible for your decision to remain a stockholder of Citizens Utilities Company. (Rank in order of importance if more than one.)

Under queries 4 and 5 are listed the following subheads:

(a) Company's annual reports.

(b) Company's annual report advertisements.

(c) Brokers' memoranda.

(d) Company's stock dividend policy.

(e) Advice or recommendation of broker, investment counselor, friend, or others (please specify).

(f) Company's earnings record.

(g) Write-up of company in financial statistical services.

(h) Company's diversification.

(i) Other (please specify).

This is probably the first instance in which the company has tried to discover its stockholders' motives for purchasing its common stock, as well as to try to ascertain stockholders' ideas as to the preparation of the annual report. The answers to Question 4, if made available, might be of considerable interest.

DATA ON ELECTRIC UTILITY STOCKS

1952 Rev. (Mill.)			*1/27/54 Price About*	*Div. Rate*	*Current Yield*	*Share Earnings* Cur. Period*	*% Increase*	*12 Mos. Ended*	*Price-Earns. Ratio*	*Dividend Payout*	*Moody Bond Rating*
$206	S	American Gas & E.	34	$1.64#	4.8%	$2.49**	6%	Dec.	13.7	66%	—
27	O	Arizona Public Service	18	.90	5.0	1.22	12	Nov.	14.8	74	—
7	O	Arkansas Mo. Power	21	1.10	5.2	1.63	21	Sept.	12.9	67	—
23	S	Atlantic City Elec.	33	1.50b	4.5	2.05	14	Nov.	16.1	73	Aa
5	O	Bangor Hydro-Elec.	30	1.80	6.0	2.06	29	Dec.	14.6	87	—
3	O	Black Hills P. & L.	21	1.28	6.1	2.00	11	Oct.	10.5	64	—
79	S	Boston Edison	51	2.80	5.5	2.98	D1	Sept.	17.1	94	Aaa
15	A	California Elec. Pr.	10	.60	6.0	.91	NC	Oct.	11.0	66	A
14	O	Calif. Oregon Pr.	27	1.60	5.9	1.70	1	Nov.	15.9	94	A
48	S	Carolina P. & L.	42	2.00#	4.8	2.99	2	Dec.	14.0	67	A
21	S	Central Hudson G. & E. ...	13	.70	5.4	.85	10	Sept.	15.3	82	—
15	O	Central Ill. E. & G.	29	1.60	5.5	2.29	—	Sept.	12.7	70	A
25	S	Central Ill. Light	40	2.20	5.5	2.73	9	Dec.	14.7	81	Aa
35	S	Central Ill. P. S.	20	1.20	6.0	1.40	1	Sept.	14.3	86	A
8	O	Cent. Louisiana Elec.	23	1.00#	4.3	1.58	8	Dec.	14.6	63	Baa
25	O	Central Maine Power	19	1.20	6.3	1.37	D9	Nov.	13.9	88	A
88	S	Central & South West	24	1.16	4.8	1.65	11	Sept.	14.5	70	—
8	O	Central Vermont P. S.	15	.84	5.6	.94**	D18	Nov.	16.0	89	A
83	S	Cincinnati G. & E.	21	1.00#	4.8	1.52	9	Sept.	13.8	66	Aaa
5	O	Citizens Utilities	16	.40a	5.5a	.98	13	Sept.	16.3	41	Ba
87	S	Cleveland Elec. Illum.	55	2.60	4.7	4.05	21	Sept.	13.6	64	Aaa
2	O	Colorado Cent. Power	23	1.12	4.9	1.46	14	Sept.	15.8	77	—
34	S	Columbus & S.O.E.	27	1.60	5.9	2.27	15	Sept.	11.9	70	A
304	S	Commonwealth Edison	39	1.80	4.6	2.34	8	Sept.	16.7	77	Aaa
8	A	Community Pub. Ser.	21	1.00#	4.8	1.66	22	Sept.	12.7	60	—

1952 Rev. (Mill.)			1/27/54 Price About	Div. Rate	Current Yield	Share Earnings* Cur. Period	Share Earnings* % Increase	Share Earnings* 12 Mos. Ended	Price-Earns. Ratio	Dividend Payout	Moody Bond Rating
1	O	Concord Electric	36	2.40	6.7	1.89	D25	Dec.	19.0	127	—
50	O	Connecticut L. & P.	17	.88†	5.2	1.01	5	Nov.	16.8	87	Aaa
17	O	Connecticut Power	40	2.25	5.6	2.34	D3	Sept.	17.1	96	Aaa
435	S	Consol. Edison	43	2.40	5.6	2.94	12	Dec.	14.6	82	Aa
91	S	Consol. Gas of Balt.	28	1.40	5.0	1.84	12	Sept.	15.2	76	Aaa
137	S	Consumers Power	39	2.20	5.6	3.08	24	Nov.	12.7	71	Aa
53	S	Dayton P. & L.	39	2.00	5.1	2.71	2	Sept.	14.4	74	Aa
26	S	Delaware P. & L.	29	1.40	4.8	2.07	20	Nov.	14.0	68	Aa
173	S	Detroit Edison	30	1.60	5.3	2.00	28	Nov.	15.0	80	Aa
98	A	Duke Power	41	1.85	4.5	2.87	29	Sept.	14.3	64	Aaa
78	S	Duquesne Light	29	1.60	5.5	2.18	10	Sept.	13.3	73	Aaa
26	O	Eastern Util. Assoc.	31	2.00	6.5	2.55	10	Oct.	12.2	78	—
1	O	Edison Sault Elec.	9	.50	5.6	.72	1	Sept.	12.5	70	—
8	O	El Paso Electric	30	1.60	5.3	2.12	8	Nov.	14.2	75	A
10	S	Empire Dist. Elec.	24	1.40	5.8	2.14	14	Sept.	11.2	65	Baa
4	O	Fitchburg G. & E.	48	3.00	6.3	3.63	16	Dec.	13.2	83	—
28	S	Florida Power Corp.	30	1.50	5.0	2.00	35	Sept.	15.0	75	A
61	S	Florida P. & L.	41	1.60	3.9	2.98	13	Sept.	13.8	54	A
145	S	General Pub. Util.	29	1.70	5.9	2.39	24	Sept.	12.1	71	—
5	O	Green Mt. Power	25	1.30	5.2	1.83	3	Sept.	13.7	71	Ba
37	S	Gulf States Util.	27	1.20	4.4	1.78	32	Nov.	15.2	67	Aa
19	A	Hartford E. L.	55	2.75	5.0	3.69	38	Sept.	14.9	75	Aaa
4	O	Haverhill Elec.	40	2.50†	6.3	2.71	5	(c)	14.8	92	—
48	S	Houston L. & P.	29	1.20	4.1	1.99	18	Dec.	14.6	60	Aa
6	O	Housatonic P. S.	23	1.40	6.1	1.52	5	(c)	15.1	92	—
19	S	Idaho Power	46	2.20	4.8	3.39	42	Sept.	13.6	65	Aa
55	S	Illinois Power	42	2.20	5.2	2.80	7	Nov.	15.0	77	A
33	S	Indianapolis P. & L.	41	2.20	5.4	3.11	D1	Sept.	13.2	71	A
16	S	Interstate Power	11	.64	5.8	.94	12	Sept.	11.7	68	Baa
18	O	Iowa Elec. L. & P.	22	1.20	5.5	1.58	14	Nov.	13.9	76	—
26	S	Iowa-Ill. G. & E.	31	1.80	5.8	2.26	4	Nov.	13.7	80	Aa
27	S	Iowa Power & Light	26	1.40	5.4	1.92	17	Sept.	13.5	73	Aa
23	O	Iowa Pub. Service	24	1.40	5.8	1.86	17	Dec.	12.9	75	A
10	O	Iowa Southern Util.	22	1.20	5.5	1.64	38	Nov.	13.4	73	Baa
41	S	Kansas City P. & L.	33	1.80	5.5	2.45	17	Nov.	13.5	73	Aaa
19	O	Kansas Gas & Elec.	40	2.00	5.0	3.44	21	Dec.	11.6	58	A
32	S	Kansas Pr. & Lt.	19	1.12	5.9	1.37	1	Sept.	13.9	82	Aa
28	O	Kentucky Utilities	20	1.12	5.6	1.70	12	Sept.	11.8	59	A
6	O	Lake Superior D. P.	34	2.00	5.9	2.87	10	Sept.	11.8	70	A
6	O	Lawrence Electric	29	1.70†	5.9	2.38	D10	(c)	12.2	71	Aa
59	S	Long Island Lighting	17	1.00	5.9	1.24	10	Sept.	13.7	81	A
36	S	Louisville G. & E.	43	1.80	4.2	3.28	14	Dec.	13.1	55	Aa
6	O	Lowell Elec. Lt.	56	3.35†	6.0	3.63	D2	(c)	15.4	92	—
8	O	Lynn G. & E.	28	1.60	5.7	1.88	21	(c)	14.9	85	Aa
6	O	Madison G. & E.	37	1.60	4.3	2.71	10	(c)	13.7	59	Aa
3	A	Maine Public Service	23	1.40	6.1	1.81	44	Nov.	12.7	77	Baa
4	O	Michigan G. & E.	32	1.35#	7.2a	2.83	2	Sept.	11.3	48	Baa
116	S	Middle South Util.	28	1.40	5.0	1.99	14	Nov.	14.1	70	—
18	S	Minnesota P. & L.	23	1.20	5.2	1.98	22	Nov.	11.6	61	A
2	O	Miss. Valley P. S.	24	1.40	5.8	2.12	24	Dec.	11.3	66	—
8	A	Missouri P. S.	32	1.80	5.6	2.09	34	Dec.	15.3	86	—
5	O	Missouri Utilities	20	1.00	5.0	1.63	4	Dec.	12.3	61	—
31	S	Montana Power	32	1.60	5.0	2.59	D3	Nov.	12.4	62	Aa
15	A	Mountain States Pr.	18	.84	4.7	1.31	15	Nov.	13.7	64	Baa
105	S	New England Elec.	15	.90	6.0	1.22**	D2	Sept.	12.3	74	Baa
36	O	New England G. & E.	16	1.00	6.3	1.36**	6	Nov.	11.8	74	Baa
39	O	New Orleans P. S.	41	2.25	5.5	2.92	5	Nov.	14.0	77	A
2	O	Newport Electric	36	2.00	5.6	3.44	15	Nov.	10.5	58	—
63	S	N. Y. State E. & G.	37	1.90	5.1	2.55	12	Dec.	14.5	75	A
189	S	Niagara Mohawk Power	29	1.60	5.5	2.03	17	Oct.	14.3	79	Aa
59	O	Northern Ind. P. S.	27	1.60	5.9	2.40	4	Nov.	11.3	67	A
100	S	Northern States Pr.	14½	.80	5.5	1.10	16	Sept.	13.2	73	Aa
8	O	Northwestern P. S.	15	.90	6.0	1.39	2	Sept.	10.8	65	A
101	S	Ohio Edison	39	2.20	5.6	3.10	17	Nov.	12.6	71	Aa
32	S	Oklahoma G. & E.	27	1.50	5.6	1.90	4	Dec.	14.2	79	A
13	O	Otter Tail Power	25	1.50	6.0	2.24	14	Nov.	11.2	67	—

1952 Rev. (Mill.)			1/27/54 Price About	Div. Rate	Current Yield	Share Earnings* Cur. Period	% Increase	12 Mos. Ended	Price-Earns. Ratio	Dividend Payout	Moody Bond Rating
314	S	Pacific G. & E.	40	2.20	5.5	3.12	43	Sept.	12.8	71	Aa
22	O	Pacific P. & L.	22	1.20	5.5	1.82	3	Nov.	12.1	66	Baa
87	S	Penn. Power & Light	36	2.00	5.6	2.85	17	Nov.	12.6	70	A
8	A	Penn. Water & Power	39	2.00	5.1	2.31	D9	(c)	16.9	87	A
175	S	Philadelphia Elec.	33	1.60	4.8	2.35	8	Oct.	14.0	68	Aaa
29	O	Portland Gen. Elec.	33	1.80	5.5	2.53	1	Nov.	13.0	71	Baa
48	S	Potomac Elec. Power	18	1.00	5.6	1.12	D3	Nov.	16.1	89	Aa
52	S	Pub. Serv. of Colo.	34	1.60	4.7	2.33	14	Sept.	14.6	69	Aa
214	S	Pub. Serv. E. & G.	27	1.60	5.9	1.80	15	Dec.	15.0	89	Aa
54	S	Pub. Serv. of Ind.	37	2.00	5.4	2.34	10	Nov.	15.8	85	Aa
17	O	Public Serv. of N. H.	28	1.80	6.4	1.83	D11	Nov.	15.3	98	A
8	O	Public Serv. of N. M.	11½	.68	5.9	.81	14	Sept.	14.2	84	—
20	O	Puget Sound P. & L.	25	1.50	6.0	1.70	3	Sept.	14.7	88	Baa
43	S	Rochester G. & E.	43	2.24	5.2	3.30	23	Dec.	13.0	68	A
9	O	Rockland L. & P.	14	.60	4.3	.68	11	Sept.	20.6	88	A
7	S	St. Joseph L. & P.	20	1.20	6.0	1.69	20	Sept.	11.8	71	A
33	O	San Diego G. & E.	15	.80	5.3	1.14	4	Nov.	13.2	70	Aa
12	S	Scranton Electric	17	1.00	5.9	1.39	24	Nov.	12.2	72	—
6	O	Sierra Pacific Pr.	33	2.00	6.1	2.75	24	Nov.	12.0	73	Baa
127	S	So. Calif. Edison	39	2.00	5.1	2.57	D15	Sept.	15.2	78	Aa
27	S	So. Carolina E. & G.	15	.80	5.3	.99	21	Nov.	15.2	71	Baa
5	O	Southern Colo. Pr.	12½	.70	5.6	1.16	25	Nov.	10.8	60	—
164	S	Southern Company	16	.80	5.0	1.23	4	Dec.	13.0	65	—
12	S	So. Indiana G. & E.	26	1.50	5.8	2.17	21	Nov.	12.0	69	Aa
1	O	Southern Utah Power	14	1.00	7.1	1.67	46	Dec.	8.4	60	—
2	O	Southwestern E. S.	18	.96	5.3	1.41	4	Aug.	12.8	68	—
27	O	Southwestern P. S.	25	1.32	5.3	1.49	10	Nov.	16.8	89	A
15	A	Tampa Electric	54	2.80	5.2	3.67	13	Nov.	14.7	76	Aa
94	S	Texas Utilities	48	2.08	4.3	3.32	15	Nov.	14.5	63	Aa
33	S	Toledo Edison	13	.70	5.4	.91	D2	Sept.	14.3	77	A
8	O	Tucson G. E. L. & P. ...	18½	.92	5.0	1.40	22	Sept.	13.2	66	—
91	S	Union Elec. of Mo.	23	1.20	5.2	1.28	2	Sept.	18.0	94	Aa
25	O	United Illuminating	46	2.40†	5.2	2.73	15	Dec.	16.8	88	—
2	O	Upper Peninsula Pr.	18½	1.20	6.5	1.34	D5	Sept.	13.8	90	Baa
26	S	Utah Power & Light	35	2.00	5.7	2.67	10	Nov.	13.1	75	A
77	S	Virginia E. & P.	28	1.40	5.0	1.78	13	Dec.	15.7	79	Aa
18	S	Washington Water Pr.	26	1.60	6.2	1.77	6	Dec.	14.7	90	A
100	S	West Penn Elec.	38	2.20	5.8	3.41	7	Nov.	11.1	65	—
56	O	West Penn Power	42	2.10†	5.0	2.39	7	Sept.	17.6	88	Aa
9	O	Western Lt. & Tel.	28	1.60	5.7	2.55	31	Sept.	11.0	63	A
20	O	Western Mass. Cos.	35	2.00	5.7	2.52	27	Nov.	13.9	79	—
79	S	Wisconsin Elec. Pr.	31	1.50	4.8	2.15	24	Sept.	14.4	70	Aa
29	O	Wisconsin P. & L.	23	1.20	5.2	1.65	15	Sept.	13.9	73	A
27	S	Wisconsin Pub. Ser.	20	1.10	5.5	1.60	21	Oct.	12.5	69	A
		Averages			5.4%				13.8	74%	
		Foreign Companies††									
$187	S	American & Foreign Pr. ..	9	$ .60	6.7%	$2.36	22%	Sept.	3.8	25%	—
170	A	Brazilian Trac. L. & P.	7½	.03b	—	2.96	20	(c)	2.5	—	—
53	A	British Columbia Pr.	19	1.00	5.3	—	—	—	—	—	—
15	A	Gatineau Power	23	1.20	5.2	1.62	25	(c)	14.2	74	Baa
26	O	Mexican L. & P.	6	—	—	—	—	—	—	—	—
8	A	Quebec Power	22	1.20	5.5	1.28	9	(c)	17.2	94	Baa
40	A	Shawinigan Water & Pr. ..	40	1.45	3.6	1.91	4	(c)	20.9	76	Baa
17	A	Winnipeg Electric	45	2.40	5.3	—	—	—	—	—	Ba

B—Boston Exchange. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. D—Decrease. NC—No comparable figures available. *If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. Percentage change is in the balance available for common stock. Tax savings resulting from accelerated amortization of defense facilities are excluded (when separately reported). **Based on average number of shares. a—Also regular annual 3 per cent stock dividend, which is included in the yield. b—Also 5 per cent stock dividend. c—Calendar year 1952. #—Also occasional stock dividends. †Estimated (rate irregular or includes extras). ††With exception of American & Foreign Power, these stocks are also listed in Canada, and the Canadian prices are here used. (Curb prices are affected by exchange rates, etc.)

What Others Think

President Offers Moderate Resources Program

PRESIDENT Eisenhower's budget recommendations for the development of natural resources underlined his administration's "middle of the road" approach to domestic issues, recognizing the positive rôle of the federal government in resource development but at the same time tying any new programs to the over-all fiscal position of the country as affected by high expenditures for national defense.

"To keep the federal financial burden at a minimum while defense expenditures remain high," the President told Congress, "some improvements and program expansions which might be desirable have not been included in this budget. Emphasis has been given to careful planning to insure sound development of our natural resources. Such development should be timed, whenever possible, to assist in leveling off peaks and valleys in our economic life."

The President emphasized, as he has done before, the rôle to be played by nonfederal agencies in resource development. "To the greatest extent possible, the responsibility for resource development, and its cost, should be borne by those who receive the benefits," he said. "In many instances, private interests or state and local governments can best carry on the needed programs. In other instances federal participation or initiative may be necessary to safeguard the public interest and to accomplish broad national objectives." He outlined a billion-dollar program for the management and protection of resources in fiscal 1955, about three-fourths of which will be for flood control, irrigation, power, and multiple-purpose river basin development.

REVIEWING the efforts of his administration during the past year to develop a sound and uniform national policy for conservation, improvement, and use of water resources, the President said nonfederal interests would continue to be encouraged to formulate plans and undertake development of water resources, including hydroelectric power, "which are consonant with the best use of the natural resources of the area." He pointed to the proposed development of the St. Lawrence river as "an outstanding example" of cooperation between state, federal, and international government. "It would also be in the public interest for construction to be undertaken, on a nonfederal basis, to realize the power potential of the Niagara Falls site," he added.

During the fiscal year 1955, twenty projects will be completed or substantially completed, including nine for flood control, five for irrigation, and six multiple-purpose projects with power facilities.

The President asked for appropriations for three new Bureau of Reclamation projects already authorized by Congress, and authorizations for two more. In the case of one of the projects requiring authorization, the President stated:

> I have recommended to the Congress that provision be made in the legislation for repayment within fifty years of all reimbursable costs, and that construction of the project be made contingent on the assumption by the state, together with local organizations, of financial responsibility for reimbursable costs beyond the ability of the water users to repay. This principle is in line with the policy of this administration that, to the greatest extent possible, the costs of these developments should be borne by those who receive the benefits.

Included in the budget is an initial appropriation request for $10,000,000 to enable the Army Corps of Engineers and the Bureau of Reclamation to co-operate with states, local governments, or private groups in the development of water resources.

TVA has been requested to study this question in co-operation with other executive agencies.

ALTHOUGH no appropriations are included in the 1955 budget for new power generation units for TVA, the President said expenditures would increase for continuation of construction of power plants presently under way, and for operation of power plants after they are completed. "In order to provide, with appropriate operating reserves, for reasonable growth in industrial, municipal, and co-operative power loads in the area through the calendar year 1957," he told the Congress, "arrangements are being made to reduce, by the fall of 1957, existing commitments of the Tennessee Valley Authority to the Atomic Energy Commission by 500,000 to 600,000 kilowatts." This would release the equivalent amount of TVA generating capacity to meet increased load requirements of other consumers in the power system and at the same time eliminate the need for appropriating funds from the Treasury to finance additional generating units. In case the power requirements of the Atomic Energy Commission cannot be met from other sources, the question of additional generating units for TVA will be reconsidered.

In regard to the construction of transmission facilities by the government, the President stated:

> The power policy of this administration recognizes the willingness of state and local groups to participate in providing additional power facilities. Where the necessary transmission facilities are not being provided on reasonable terms by other public or private agencies, the Department of the Interior will construct and operate transmission lines that are economically feasible and are necessary for proper interconnection and operation of federal generation plants, and those that are required to carry power to load centers within economic transmission distances.
>
> As a result of this policy and the approaching completion of transmission systems required for carrying out arrangements for marketing power from federal projects under construction, combined expenditures of the Bonneville, Southeastern, and Southwestern Power administrations in the fiscal year 1955 will be less than in 1954.

AN unexpected item in the President's Budget Message was the proposal to make the government pay for benefits re-

ceived by federal hydro projects from upstream development. Under the Federal Power Act, licensees of hydroelectric projects which benefit from headwater impoundments or other projects, either public or private, must make annual payments to the upstream developer in accordance with benefits received. The federal government is not required to make similar payments when federal projects derive such benefits. "In simple equity," the President said, "this should be done." He recommended legislation which would require such federal payments.

The President also requested legislation which would require the Tennessee Valley Authority to pay interest on federal investment. "In order to carry out the power policy of this administration, which requires an interest charge on the federal investment in power facilities to reimburse the Treasury for the cost of providing funds," he stated, "a proposal is being developed for submission to the Congress to provide that an adequate rate of interest be paid to the Treasury on public funds invested in power facilities of the Tennessee Valley Authority."

What Do the Public Power People Really Want?

SINCE the advent of the Republican administration, there has been a noticeable tendency within the electric power industry to assume that the reinterpretation of the rôle of the federal government in the electric power field, more favorable to private enterprise, has removed from the scene the threat of federalization of all power production.

There is the possibility, however, that there may be, among regulatory commissions as well as within the electric utility industry, some degree of failure to understand the true nature of the opposition to private development of electric power. The dispute now raging over the Interior Department's new power-marketing policies in the Missouri basin offers a case in point. As Interior Solicitor Clarence A. Davis pointed out recently in testimony before a Senate Judiciary subcommittee, "It is . . . apparent that there are profound philosophical differences as to the proper rôle of the federal government in the economy of the electric industry. I think it is apparent that a large part of the controversy grows out of the basic philosophical and political differences, of which the power-marketing criteria for the Missouri basin is only a symbol."

Both Davis and Assistant Secretary of Interior Aandahl have publicly charged that public power groups are seeking a complete federal monopoly of power production, through an erroneous interpretation of "preference" provisions in federal legislation. The charge has been vigorously denied.

THE delegates to the recent Miami convention of the National Rural Electric Co-operative Association even went so far as to pass a resolution disavowing any such intention. The only remaining possibility, then, is to draw one's own conclusions from the frequently stated objectives of the proponents of public power. These objectives were most recently set down by Leland Olds, former chairman of the Federal Power Commission, at the National Electric Consumers Conference in Denver last December.

Olds said:

> First, let us get perfectly clear what democracy in the power business means.

Democracy in the power business is the right of the people to undertake this public business through their local agencies: municipalities, districts, and co-operatives, or any other local agency they may choose. In the exercise of this right they may conditionally franchise privately owned agencies to conduct the business. But this does not abrogate their right at any time to undertake the community's power business on a public or co-operative basis. As part of the exercise of this right, they may obtain the assistance of their federal government, where necessary, to assure economical power supply.

OLDS then went on to outline an electric power policy for consumers, presumably with the approval of those public power groups attending the conference. On the state and local levels, public power groups should promote:

1. Citizen support for existing municipal, public utility districts, and co-operative electric systems.

2. Citizen interest in the possibilities of community supply of electricity on a public or co-operative basis "where the existing private supplier fails to promote rapidly expanding use of electricity at lower rates."

3. State legislation to assure freedom of communities to finance, acquire, construct, and operate electric systems on a nonprofit basis and to combine into districts for that purpose with a minimum of interference from state regulatory bodies.

4. State regulatory laws making it illegal for public utility companies to engage in or finance campaigns of any sort to influence political action, "or to create public opinion to affect such action," or to charge advertising and public relations expenses to operating costs for purposes of rate regulation.

5. Steps to round out public and co-operative power market areas by acquisition or combination or both.

SUCH a program, Olds continued, must be actively implemented at the federal level, as follows:

1. Recognition by Congress of federal responsibility for that portion of regional power supply required to meet expanding needs of present or future nonprofit electric systems.

2. Establishment of regional development agencies, following the TVA pattern, in all regions, including a Missouri Valley and Columbia Valley Administration:

(a) recognition of hydroelectric development as one among the several primary objectives of multiple-purpose river basin programs;

(b) vesting in such regional authorities of full control over development of water resources of basins under their jurisdiction;

(c) corresponding limitation on the discretion of the Federal Power Commission to grant licenses for private development without approval by the responsible regional authority;

(d) provisions allowing regional authorities to exercise the right of recapture of hydro developments after expiration of the license;

(e) provision for the construction by such authorities of steam-electric stations and transmission lines;

(f) provisions corresponding to those in the TVA Act covering preference to co-ops, assistance to such nonprofit systems, and joint acquisition of existing utility properties;

(g) provision for financing expansions or acquisitions out of net earnings or funds derived from revenue bonds.

3. Full technical and financial support for vertical and horizontal expansion of the rural electric program, including assistance to generating and transmission co-ops as a supplement to the federal power supply program, and removal of population limitation on communities which rural co-ops may serve.

4. Establishment by Congress of a Federal Giant Power Commission to plan, finance, construct, and operate large interregional wholesale power supply grids interconnecting federal hydroelectric systems, Atomic Energy Commission nuclear power plants, local public and co-op generating stations, and private electric systems.

SUCH a commission would construct, acquire, or lease power stations and transmission lines; contract for operation of nonfederal generating stations at its direction; give special attention to development of power in connection with large reserves of conventional fuels, including lignite, to supplement power from other sources; co-operate with the Atomic Energy Commission in the development of large, low-cost nuclear power plants. Atomic power developed by the federal government would be marketed as an element in the general power supply from the federal grids.

5. Legislation rendering it illegal for any electric or other utility engaged in interstate commerce to finance or engage in any political activity designed to influence political action at the state, local, or national level of government, or to create public opinion for or against such actions. The FPC would enforce this legislation. The Internal Revenue Act would be amended to forbid charging off expenditures for advertising, contributions to organizations, or other public relations activity, to expenses as deductions for tax purposes.

If the adoption and development of such policies would not, taken together, eventually add up to a publicly owned, if not a federal, power supply monopoly, it certainly isn't Mr. Olds' fault. He has evidently tried his best to make it plain enough.

"WE do have a water problem: Demand is outrunning supply. It takes 250 tons of water to make one ton of steel. It takes 18 barrels of water to produce a barrel of oil. It takes 64,000 gallons of water to make a ton of paper. So industry uses more water than anything else in the world, and most of it has to be better than 99 and 44/100 per cent pure. That's where the trouble comes. During World War II, when we were trying to put up new factories everywhere we could, over three hundred plants had to be moved or abandoned just because they could not get the supplies of fresh pure water they needed to make their goods. On the West coast, water for irrigation is so scarce in some places that engineers are trying to figure out ways to build enormous installations to distill fresh water from the sea."

—ABEL WOLMAN,
Professor of sanitary engineering,
Johns Hopkins University.

The March of Events

New FPC Policy on Bonding Rates

THE Federal Power Commission has adopted a new policy which it said would result in "some savings" for natural gas companies whose increased rates are still subject to refund.

Under the old policy, companies allowed to collect suspended rate increases subject to refund had to furnish a bond as a guaranty that they would refund to their customers any portion of the rate increase the commission later decided was unjustified. The bond was usually equal to 10 per cent of the total rate increase requested by the company.

The new policy, however, says that companies merely have to file a written promise that they will make such refunds. This will result in "some savings" for the companies which should be of ultimate benefit to consumers, the FPC said. It made no estimate of exact dollar amounts.

The commission made public its new policy in an order making effective as of January 1, 1954, a suspended wholesale natural gas rate increase requested by Colorado Interstate Gas Company. The company wants to boost its rates $6,500,000 a year. Hearings on the proposed increase were held early last month, but were recessed. Colorado Interstate must refund, with interest, any amounts the commission decides are unjustified.

California

Utilities Upheld on Franchise Tax

THE state supreme court last month upheld a tax-computing method for public utilities which cuts down considerably on the amount of franchise payments the utilities must pay cities and counties.

The court ruled that the clause in franchise agreements saying the company will pay the county or city 2 per cent of its gross receipts does not apply to all the money received but just to that amount that can be computed as arising from the use of the franchise involved.

The ruling was made in two suits, one brought by the city of San Diego and the other by the county of Los Angeles.

San Diego brought suit against the Southern California Telephone Corporation for taxes on a franchise in Old Town for 1944 to 1949. The court held that the

company correctly computed its tax at $158,670. The city contended it owed $421,435.

Los Angeles county challenged the computations of the Southern Counties Gas Company of California, but the court held that the computations had been correctly made.

Colorado

Tax to Pay Regulatory Costs

A BILL to require privately owned public utilities in Colorado to pay 75 per cent of the cost of their own regulation was introduced in the state legislature late last month by Representatives Ernest Weinland of Loveland and William Best of Denver, both Republicans, and Hackett Smartt, Lamar, Democrat.

Under the bill, a tax not to exceed one-tenth of one per cent of gross business was to be levied against all utilities regulated by the state public utilities commission except truck lines falling under ton-mile tax assessment.

Proponents of the bill said the measure would raise enough to meet three-fourths of the cost of state public utility commission administration. The remaining fourth would come from the state's general fund, which now foots the entire cost.

District of Columbia

Transit Fares Increased

THE District of Columbia Public Utilities Commission last month boosted Capital Transit Company fares to 20 cents cash, with tokens five for 80 cents, effective January 31st. The commission also abolished the weekly pass, ordering a new 75-cent weekly permit with unlimited rides for 10 cents each.

Capital Transit had asked the commission for 20-cent cash fares, five tokens for 95 cents, and elimination of the weekly pass.

In a 41-page order covering the whole field of local transit conditions, the commission declared the fare schedule requested by CTC "would provoke alarming public resistance," force more people to use autos, and help to "eventually defeat private (transit) ownership."

It was estimated the new fares would bring in $1,187,000 additional annual revenue, give CTC a net operating income of $1,480,630, and a rate of return for the company's District operations of 6.32 per cent.

Illinois

Rehearing Asked on Rate Increase

A PETITION was filed in Springfield recently, seeking a rehearing by the state commerce commission of its order of January 16th. The order granted the Commonwealth Edison Company a $20,480,000 annual increase in gas and electric rates.

The new rate increases for Commonwealth and its Public Service Company division, which were effective with meter readings starting February 1st, will not apply for service prior to January 1st, the company recently advised the commission.

Nebraska

Gas Rates Not to Be Raised

GAS rates for Omaha householders will not be raised, Walter S. Byrne, general manager of the Metropolitan Utilities District, said recently. But the district now will pay an additional $600,000 a year for the gas it buys from the Northern Natural Gas Company.

The board of directors, at a recent special meeting, approved accepting a compromise rate increase proposed by the Federal Power Commission.

New Hampshire

Files for Rate Increase

THE Public Service Company of New Hampshire has filed rates to comply with an order recently issued by the state public utilities commission, allowing an annual rate increase of $1,012,227. The decision ended five months of proceedings in which the utility sought to increase its revenues by $1,029,086.

The company serves directly approximately 70 per cent of the state's population.

Tennessee

Municipal Utility Tax Studied

A STUDY to determine the feasibility of taxing municipal electric services as a means of obtaining additional revenue was authorized by the Tennessee County Judges Association at a meeting in Nashville last month.

The motion authorized the directors of the association and the executive secretary to make the proposed study and report back at the April meeting.

Virginia

Strike Ban Act Upheld

CONSTITUTIONALITY of Virginia's revised public utility antistrike act was upheld by the state supreme court late last month when it rejected a petition for appeal filed by a bus drivers' union and several of its employees from a Richmond Circuit Court decree that last June held the law "valid in all respects."

Under the law, which was revised by the 1952 state legislature, the governor can order a public utility seized and operated by the state corporation commission if a work stoppage at the utility threatens the state's welfare and safety.

Washington

Rate Boost Made Permanent

A TEMPORARY rate increase granted the Washington Water Power Company a year ago will be continued on a permanent basis, the state public service commission announced recently. Authorization to continue the rate boost was given after the commission reviewed the firm's monthly reports and held a hearing in Spokane several weeks ago.

Progress of Regulation

Hypothetical Capital Structure May Be Adopted For Rate-making Purposes

THE Colorado commission, in considering a statewide telephone company's application for a rate order determining a rate base and a fair return, observed that it was not required to follow any particular formula.

Property held for future use was allowed as part of the rate base. Similar treatment was given plant under construction provided that the related interest charged to construction was included as an addition to income in computing net operating earnings. Plant acquisition adjustment (the difference between the purchase price and the original cost of acquired property) was not allowed as a part of the rate base.

Separation effected according to the procedures set forth in the Charleston modification of the NARUC Separations Manual were considered proper by the Colorado commission.

The commission stated that a return allowance should be more than enough to pay interest and reasonable dividends. After disposing of the cost of capital, something should remain to be passed to the surplus account. If a company's financial structure does not appear to be in the public interest because the debt ratio is too low, the commission has authority to adopt a hypothetical capital structure for rate-making purposes only.

The return which the commission allowed was 6.69 per cent and was described as "more than the bare cost of capital . . . and . . . sufficient to assure confidence in the financial soundness of the applicant company, and adequate to maintain its credit and to attract the capital necessary for the proper discharge of its public duties." *Re Mountain States Teleph. & Teleg. Co. Application No. 12292, Decision No. 41363, October 9, 1953.*

Stock Exchanged on Four-for-one Basis

THE New Jersey Board of Public Utility Commissioners authorized a water company to issue common stock in exchange for presently outstanding common stock on a four-for-one basis. The company was also authorized to issue bonds and preferred stock. The preferred stock carried the same voting rights per share as the outstanding common stock. This was done to finance new construction.

The company desired to quadruple its voting rights under common stock to as-

sure continued control by the parent company. Without the exchange, a situation could develop, according to the commission, upon the issuance of a sufficient amount of additional preferred stock, with similar voting privileges, which would confer voting control upon the preferred stockholders as a class, by virtue of their numerical holdings of shares. It was considered reasonable to prevent this.

Debt Ratio

The debt capital ratio of the company will be 63.9 per cent of total capitalization after the proposed transactions are completed. The board pointed out that under its policy the allowable maximum debt capital is usually not more than 60 per cent. However, it recognized that the company's financial position is sound, that its earning capacity is more than ample to cover the carrying charges on its debt as well as required dividends on the preferred stock. A considerable increase in the company's earning capacity is expected to result from new construction. Plant additions, other than those covered in the present application, would, of necessity, be financed from retained earnings and/or sales of common stock. The increase in equity capital resulting from such financing would gradually reduce the ratio of debt capital.

Redemption Provisions

The redemption provisions in the bonds and preferred stock prohibit redemption during the first five years. This was considered reasonable and in the public interest, since it protected the holders against any effectual reduction of the dividend or interest rate during that 5-year period. *Re Commonwealth Water Co. Docket No. 7638, January 6, 1954.*

Construction Costs Reflected in Rate Increase and Federal Excise Taxes Criticized

THE Minnesota commission authorized the Northwestern Bell Telephone Company to increase rates to yield a return of 6.29 per cent. In reducing a larger increase requested by the company, the commission pointed out that funds collected in advance and tax accruals could absorb a large part of the claimed working capital allowance.

Effect of New Construction on Earnings

The company must continue a large-scale construction program to meet an increasing demand for service. The commission recognized that the company's earnings will fall below the rate deemed necessary to carry on its business and attract the capital necessary to finance the construction unless some consideration is given to the increased investment made by the company during the period in which the new rates are to be in effect. Consequently, in prescribing the new rates, the commission allowed for the effect of new construction on the company's earnings. It was noted that this factor has been widely recognized by other commissions, and has been discussed recently in the 1953 Report of the Committee on Valuation for the NARUC.

Federal Excise Taxes

Concerning the heavy excise taxes levied by the federal government on telephone users, the commission said:

> We desire again to emphasize that the telephone is an absolute necessity to a great many people and that in spite

of that, in many instances, it is carrying a tax that is much larger than the tax levied upon articles that are mere luxuries. Where the commission finds it necessary to increase rates so that the telephone company may carry on its business and furnish the service demanded by the people, at the same time it must increase the tax obligation of every telephone subscriber. The National Association of Railroad and Utilities Commissioners has declared these taxes to be discriminatory against telephone users and grossly unfair.

Re Northwestern Bell Teleph. Co. M-3616, January 8, 1954.

Nonpaying Guests on Ferry Flights Examined By Civil Aeronautics Board

An airline operated ferry flights between New York and Miami for major maintenance. Company employees and members of the public were carried on the flights as invited guests without charge. Aware that some of the guests continued south on the airline's certificated commercial service, paying regular rates from Miami, the Civil Aeronautics Board instituted an investigation to determine whether the company was furnishing unauthorized free and reduced rate transportation.

A common carrier, noted the board, is one that invites the patronage of the public by holding itself out as ready and willing to undertake the transportation of passengers or property for hire. The controlling consideration as to whether there has been such a holding out is the availability of the carrier's service, which may either be broadcast to the public through advertising or just acknowledged upon inquiry.

The mere fact that passengers are transported without charge does not automatically preclude a finding that the carrier is rendering service as a common carrier. Whether or not the passengers pay for the transportation is only one element to be considered.

The board summarized its view on the airline's practice in these words:

Although under the facts before us we are compelled to conclude that the free transportation in question was not performed in violation of the act, we must nevertheless express our deep concern over a practice that results in the free carriage of selected members of the public on an extensive scale in operations over routes of other certificated carriers. The potential dangers of free transportation and the detrimental effect that its granting can have on the public, the carriers, and the sound development of the transportation system as a whole, are matters of history so well known as to need no elaboration. As the board stated in the Airline Pass Agreement, 1 CAA 677, 681 (1940): " . . . To restrict the granting of free or reduced-rate transportation would appear to be distinctly in the public interest. The abuses to which the issuance of passes are subject are matters of common knowledge among those acquainted with the history of transportation in its various forms." This is not to say that we believe that free transportation by air carriers on flights not in air transportation to a limited extent and in appropriate circumstances is harmful and should be outlawed. On the other hand we are firmly convinced that an air carrier should not establish and follow a

practice of permitting free carriage in connection with the operation of ferry flights. Whether further investigation of the facts in this proceeding would develop a record upon which the board could and would have to conclude that the carriage of guests was unlawful is a matter which we cannot answer. However, since we are convinced that the carrier in this case will take steps to restrict its operations in such a manner as to remove all possible objection to them, we do not believe that it is necessary or in the public interest to reopen the present proceeding for further hearing.

The board decided that the transportation of the guests who terminated their journey at Miami did not constitute service as a common carrier within the meaning of the Civil Aeronautics Act. The flights were called for by legitimate operational considerations and the carriage of passengers was only incidental. There had been no showing that members of the public other than invited guests were aware of the services being rendered, or would have been accepted had they known and requested the carriage.

The passengers who continued the journey south as revenue-paying passengers were regarded differently. The board thought this practice was discriminatory with respect to these passengers. It ordered the airline to cease and desist from carrying passengers who did not terminate their journey at Miami. *Re Pan American World Airways, Inc. Docket No. 5477, Order No. E-7949, December 7, 1953.*

Accounting Procedures Prescribed for Facilities Subject To Rapid Amortization Certificates

As a result of a petition filed by the Boston Edison Company for instructions with respect to accounting for the amortization of emergency facilities for which necessity certificates have been obtained from the Internal Revenue Bureau, the Massachusetts Department of Public Utilities prescribed definite procedures to be followed by utilities taking advantage of the fast tax write-off.

Advantage of Program

The advantage of the program, the department said, is that the tax savings during the 5-year rapid amortization period will be available for general corporate purposes and should result in material savings in the cost of interim financing of property additions.

The normal accounting practice of a utility would be to show actual taxes accrued for payment and actual net income for a year. However, such a procedure would reflect abnormally low earnings for the following years. As a consequence of this, the department continued, the interests of the customers and security holders require that the tax savings be held in reserve to provide for the payment of taxes to become due after the amortization period.

During the Five-year Period

The department instructed the utility to treat emergency facilities the same as other property for all purposes except income tax. During the 5-year write-off period, the tax savings are to be recorded in an account labeled Provision for Future Federal Income Taxes and credited to an account entitled Reserve for Deferred Federal Income Taxes.

After the Period

After the 5-year period the company is to charge to this reserve account and credit to "Portion of Current Federal Income Taxes Deferred in Prior Years" an amount equal to the increase in the federal income taxes payable for the year because normal depreciation cannot be deducted. Similar treatment is to be given any balance of the reserve related to plant retired during any year which plant has been amortized under a necessity certificate.

The department indicated that it would expect companies taking advantage of the fast tax write-off to provide any pertinent data requested and to insert footnotes in its annual return to the department setting forth the amount of deferred taxes resulting from the accelerated amortization. *Re Boston Edison Co. DPU 10744, December 29, 1953.*

Two More States Rule on Accelerated Amortization

THE Colorado and Missouri commissions recently issued instructions to specific companies desiring to take advantage of the accelerated amortization provisions of the Internal Revenue Code. The instructions of both states were very similar to those already issued in other jurisdictions.

The Colorado Rule

The Colorado commission directed the company to account for property affected by a certificate in the same manner as other property and to accrue depreciation on such facilities at normal rates. During the period of amortization the company should charge to a special operating deduction account entitled "Account 507-1—Provision for Deferred Federal Income Taxes," an amount each year equal to the reduction in federal income taxes for such year resulting from the accelerated amortization, with a corresponding credit to a special balance sheet entitled "Account 271-1—Earned Surplus Restricted for Future Federal Income Taxes."

After the 60-month period of rapid amortization is completed or discontinued by the company, a change should be made to the Earned Surplus Restricted Account and a credit made to an account entitled "Account 507-2—Federal Income Taxes Deferred in Prior Year," of an amount each year equal to one-twenty-fifth of said restricted surplus arising from the necessity certificate.

The Missouri Rule

The Missouri commission's restrictions were similar down to the credit to Earned Surplus Restricted. This credit under the Missouri rule should be made to an account entitled "Reserve for Deferred Income Taxes." After the expiration of the 5-year period and until this reserve is exhausted or the facility retired from service, the Missouri commission directed that a charge be made to this reserve account and a credit made to an account entitled "Current Income Taxes Deferred in Prior Years," of an amount equal to the increases of income tax resulting from the fact that no depreciation could be taken on the fully amortized facility.

However, each year's charge should be not less than an amount which bears substantially the same proportion to the balance in said reserve that one year bears to the scheduled remaining depreciable life of said emergency facility. Thus, the Missouri instruction provides for a varying charge to the reserve while the Colorado

rule provides for a straight charge to the Earned Surplus Restricted of one-twenty-fifth of the total amount in said account. *Re Public Service Co. of Colo. Application No. 12631, Decision No. 41748, December 15, 1953; Re Union Electric Co. of Missouri, Case No. 12,498, November 9, 1953.*

Manager Cuts Telephone Line after Dispute Over Delinquent Bill

COMPLAINTS by about one hundred telephone customers of a 225-customer exchange that service on one line had been totally abandoned and that on other lines existing service was inadequate were investigated by the Colorado commission. Testimony indicated that the abandoned service was on a road impassable in winter months and that one of the two customers on the line had been delinquent in paying his bills.

After some argument between the exchange manager and the customer about the delinquent bill and about the customer deducting from the bill for service outages, the manager said that if the bill were not paid he would cut the line. The customer in effect replied, "go ahead and do it," and the other customer on the line acquiesced in this remark.

The commission, after observing that the poles were the property of these two customers, ruled that the maintenance of the poles would be the customers' responsibility, while the wires would be the company's responsibility. To require the company to maintain these poles over a snowbound road would be to work a hardship that was not commensurate with the revenues received.

The commission pointed out that if all the customers were to let their bills go for several months, the company would go into bankruptcy. The company had to pay its toll bill to the Mountain States Telephone & Telegraph Company every month and could not advance money for this account without being reimbursed for it promptly.

While the commission did not censure the manager for his unusual action, it called his attention to a commission rule that service could not be discontinued for forty-eight hours after written notice had been given to the customer affected. *Schmidt et al. v. Dunbar (Fleming Teleph. Exchange) Case No. 5052, Decision No. 41489, November 5, 1953.*

Rates Increased to Attract Capital

THE Connecticut commission authorized a water company to increase rates to yield a return of 5.75 per cent. Such a return was deemed sufficient to enable the company, after paying all reasonable expenses, including depreciation and taxes, to meet its capital costs, both dividend and interest payments, at a rate sufficient to attract additional capital. Furthermore, the commission said, the new rates would enable the company to build a sufficient surplus.

The nature of a water company's business is such that technological improvements are relatively infrequent and undramatic in effect. For example, by contrast, electric companies frequently benefit through increased efficiency in new generating equipment. Gas companies have benefited from the introduction of

natural gas. But the water company's operating expenses have increased an average of 12.5 per cent per year, while operating revenues have increased only an average of 3.6 per cent per year. The commission gave effect to this trend in fixing the return.

Plant Expansion

The company is faced with a major capital expansion program to guarantee an adequate water supply. The project has been found to be necessary. The commission noted that its fundamental obligation is to fix rates which will enable the company to earn a fair return on its presently used and useful property. This is not changed by the need confronting the company for large-scale plant expansion in a period of poor earnings. Its obligation to insure that a utility will have the opportunity, under prudent management, so to operate its business that the plant which the owners have devoted to public service will earn a fair return remains the same. To do otherwise, the commission said, would require it to raise rates to a point where they would yield a return higher than necessary under existing conditions.

Major additions in a water company's plant, such as those presently proposed by the company, are started far ahead of their usefulness, and at large capital costs. This large investment is not necessitated entirely by existing customers but will reach its usefulness in future years. *Re New Haven Water Co. Docket No. 8872, January 12, 1954.*

Other Important Rulings

Reduced Electric Rates. Lower rates for a merged territory, resulting in a return of 5.27 per cent on all electric operations, were considered fair and reasonable by the Wisconsin commission, because customers of the surviving company would not be adversely affected, operating economies were expected from the merger, and continuation of existing rates to customers of the merged company, under a single interconnected unit, would probably constitute an unreasonable discrimination. *Re Northern Wisconsin Power Co. 2-U-4084, November 20, 1953.*

Alarm System. A company operating an emergency signal and alarm system for the transmission of emergency messages to a central office for conveyance to public officials was not in the business of sending messages to the public, according to the Arizona Supreme Court, but was essentially in a business of private property protection for the benefit of individual property owners and was not a public service company subject to governmental control and requiring a certificate of convenience and necessity. *General Alarm, Inc. v. Underdown et al. 262 P2d 671.*

Fast-meter Refund. A New York court held that a gas customer who attacked the reasonableness of a company's rule regarding refunds for overcharges caused by fast meters, after substitution of natural for manufactured gas, and who, in effect, attempted to substitute his own formula, was required to seek his remedy with the commission and not in the courts. *Warshaw v. Brooklyn Union Gas Co. 125 NYS2d 309.*

State and Interstate Proceedings. The New York commission refused to consider a railroad's application for authority to increase fares until a federal rate proceed-

ing involving the same railroad was terminated. *Re Wyer, Trustee, Long Island R. Co. Case 16556, December 8, 1953.*

Municipal Bus Routes. The New Jersey Board of Public Utility Commissioners ruled that board jurisdiction over bus routes within a municipality, under the statute requiring approval of municipal consent, applied only where city streets were proposed to be used in intrastate transportation and not where operations were entirely interstate. *Green Flyer, Inc. v. Somerset Bus Co., Inc. Docket No. 7690, December 16, 1953.*

Railroad Discontinuance. The rule that a railroad's entire intrastate operation should be considered as a whole in determining whether an unprofitable branch should be discontinued, commented the Michigan Supreme Court, does not apply where the entire operation is sustaining a loss. *Chicago, M., St. P. & P. R. Co. v. Michigan Pub. Service Commission, 61 NW2d 24.*

Titles and Index

Preprints in This Issue of Cases to Appear in
PUBLIC UTILITIES REPORTS

Titles

Index

Public Utilities Reports (3d Series) are published in five bound volumes a year, with the P.U.R. Annual (Index). These reports contain the decisions of the state and federal regulatory commissions, as well as court decisions on appeal. The volumes are $7.50 each; the Annual (Index) $6.00. *Public Utilities Reports* also will subsequently contain in full or abstract form cases referred to in the foregoing pages of "Progress of Regulation."

RE MONTANA-DAKOTA UTILITIES CO.

MONTANA BOARD OF RAILROAD COMMISSIONERS, EX-OFFICIO PUBLIC SERVICE COMMISSION

Re Montana-Dakota Utilities Company

Docket No. 4113, Order No. 2419
November 12, 1953

APPLICATION *by gas and electric utility for authority to increase natural gas rates; granted.*

Evidence, § 13 — Presumptions — Conduct of business — Request for rate increase.

1. The commission's policy is to look into the manner in which a utility, whether private or public, conducts its affairs when a rate increase is requested, the presumption being that the utility conducts its business with economy and efficiency, p. 101.

Expenses, § 80 — Appliances — Natural gas rate proceeding.

2. Costs relating to the sale of appliances were properly excluded as an operating expense in determining natural gas rates, p. 103.

Revenues, § 12 — Appliances — Natural gas company.

3. Income from the sale of appliances was properly excluded as revenue in determining natural gas rates, p. 103.

Apportionment, § 59 — Property outside of state — Natural gas company.

4. A natural gas company properly allocated the cost of properties situated outside the state, but used and useful in serving a certain territory within the state in question, by determining the percentage of all gas subject to allocation that was used in the state and applying the same percentage to costs, p. 103.

Rates, § 194 — Unit for rate making — Separate departments.

5. Natural gas operation in a particular territory was considered separately and apart from a utility's other business, including electric, steam, and gas for other territories, for the purpose of fixing natural gas rates in such territory, p. 104.

Rates, § 207 — Segregation of costs — Natural gas system.

6. Segregation of natural gas costs may be justified where a utility serves two communities under different conditions of cost of investment and service; and the commission has power to prescribe classifications of service, taking into account the quantity used, the time when used, and other reasonable considerations, p. 104.

Valuation, § 287 — Working capital — Federal Power Commission formulae — Natural gas department.

7. An amount representing working capital for a utility's natural gas department, determined according to a Federal Power Commission formula, was accepted, p. 105.

Valuation, § 30 — Methods of determination — Purchase cost — Reproduction figures — Natural gas department.

8. Purchase cost, purchase cost depreciated, and reproduction cost figures were considered in determining a utility's natural gas department rate base, p. 105.

Return, § 24 — Attraction of capital.

9. A utility must be permitted to earn a fair return on its investment in order to pay persons who work within its organization sufficient wages to attract competency and to pay sufficient dividends to investors, thereby attracting new capital, p. 107.

Valuation, § 39 — Reproduction cost — Recently acquired property — Purchase price.

10. Reproduction cost, though it usually plays an important part in determining a rate base, was considered, in determining a rate base for a utility's natural gas district, in light of the fact that all of such property was purchased two years before the rate proceeding, with the purchase price being looked to as the best evidence of value, and, in addition, that reproduction cost was not urged vigorously upon the commission, but apparently was presented for the purpose of rounding out the picture, p. 107.

Return, § 101 — Natural gas department.

11. Proposed natural gas rates that would yield a return of 5.63 per cent for a certain district of a utility's natural gas department were considered reasonable, p. 111.

Service, § 360 — Natural gas — Storage for future use.

Discussion and approval of natural gas company's storage of gas for future use so that there would be a reduction or an entire elimination of the need for expanding facilities to meet peak loads, p. 101.

Return, § 46 — Income taxes.

Statement that the commission, in determining rates for a utility's natural gas district, was impressed by the fact that the utility was not liable for either state or federal taxes on its present earnings for the district, p. 104.

Public utilities, § 1 — Purpose of regulation — Service and costs.

Statement that the ultimate goal sought in public utility regulation is adequate service to the largest number of citizens at a reasonable cost, p. 107.

Return, § 24 — Attraction of capital — Maintenance of credit.

Discussion of problems faced by a utility termed a fourth rate credit risk and commission's duty to allow a return sufficient to enable the company to establish a desirable credit rating and be able to attract capital, p. 109.

Parties, § 18 — Attorney general as intervenor.

Discussion of whether or not the attorney general may elect to advocate or contest any petition heard before the commission, in view of the statute designating the attorney general as attorney for the commission, p. 109.

APPEARANCES: Earl H. A. Isensee, Minneapolis, Minnesota, appearing for the applicant; Arthur F. Lamey, of Coleman, Jameson & Lamey, Attorneys at Law, Billings, appearing for the applicant.

Protestants: William Leaphart, Assistant Attorney General, Helena, appearing in protest for public and state institutions; Chan Ettien, of Morrison, and Ettien, Attorneys at Law, Havre, appearing for himself, as interest may appear.

OTHER APPEARANCES: John H. Risken, Secretary-Counsel, appearing for the board.

By the COMMISSION: The Montana-Dakota Utilities Company, hereinafter referred to as the company, by a letter dated September 8, 1953, requested that the Board of Railroad Commissioners of the State of Montana, ex-officio Public Service Commission, hereinafter referred to as the commission, authorize the said company to increase its rates and charges for natural gas service in Belfry, Billings, Bridger, Edgar, Fromberg, Joliet, Laurel, Park City, and Silesia, and in the immediate vicinity of any of them. The increases were to be brought about by the commission's permission to adopt General Purpose Gas Service Tariff, Schedule #62-M-1, which would replace Schedules #62-M and #73-M. It was proposed that service rendered under the last two would be combined under Schedule #62-M-1. Also submitted, and requested approved, was Optional Industrial Natural Gas Service Tariff, Schedule #89-M-1, to replace Schedule #89-M.

Present schedule #62-M is:

First 6,000 cu. ft. per mo.	50¢ per Mcf
Next 24,000 " " " "	45¢ per Mcf
All Over 30,000 " " " "	32¢ per Mcf
Minimum Bill—$1.00 per mo.	

Proposed Schedule #62-M-1 is:

First 6,000 cu. ft. per mo.	60¢ per Mcf
Next 24,000 " " " "	55¢ per Mcf
Next 30,000 " " " "	40¢ per Mcf
Next 140,000 " " " "	35¢ per Mcf
Next 200,000 " " " "	30¢ per Mcf
Over 400,000 " " " "	25¢ per Mcf
Minimum Bill—$1.20	

Present Optional Industrial Natural Gas Schedule #89-M is:

First 175 million cu. ft. per yr.	15¢ per 1,000 Mcf
Over 175 " " " " "	16¢ " " "
Minimum Bill—$12,000 per year	

Proposed Schedule #89-M-1 is:
For all gas consumed 24¢ per Mcf
Minimum Bill—$20,000 per year

The Petition

The company's request alleged that its rate of return on the Billings Division (this includes all of the abovementioned locales) has declined to 1.55 per cent, based on present fair value of the properties as of June 30, 1953. The new rates would yield a return of 5.01 per cent on the same basis. It was stated that, until recently, gas supplied the division had been received from the Elk Basin Field in northern Wyoming, but that this is now exhausted, and that new reserves had to be acquired in the Big Horn Basin, which necessitated a large capital investment. It was set forth that substantial additional capital investment will provide necessary reserves in the Worland Area, and will assure

the Billings Division an adequate supply of natural gas for years to come. The company continued that for many years the cost of gas delivered into the Billings System at Elk Basin was 4 cents per Mcf, but due to large capital investments and prevailing high prices for gas from the Big Horn Basin, this cost has increased to the point where it now costs 16.7 cents per Mcf to deliver it into the Billings System. All categories of operating expenses, including wages, materials, and supplies have materially increased —some more than 100 per cent—and construction costs for pipelines, compressor stations, and related facilities have more than doubled. Higher wages and cost of doing business were held responsible for the company being compelled to seek increases at this time.

The board assigned the hearing of the instant petition for 9:30 o'clock A.M., on October 22, 1953, in the City Council Chambers in the city of Billings, Montana, and the said hearing was held, after due notice as prescribed by statute, at the time and place designated.

The Company's Case

The company, through its gas engineer, presented evidence relative to the Baker-Bowdoin Worland Gas System. This was depicted in Exhibit #1. This is the company's principal gas system.

In 1951, the company acquired certain properties of the Ohio Oil Company, the Billings Gas Company, and the Rocky Mountain Gas Company, which are west and north of Lovell, Wyoming, and serve Bridger, Fromberg, Laurel, and Billings. At the time this property was acquired, there was an urgent need for additional gas supplies. The Billings Gas Company had been receiving a substantial part of its supply from the Garland Field (west of Lovell) which had not been available to the applicant inasmuch as it was being reserved to the Ohio Oil Company for the production of oil. A contract between the Billings Gas Company and the Ohio Oil Company for this gas was on the point of expiration at the time of acquisition of the properties. This was not renewed, thereby eliminating an important source of supply as far as the Billings Division was concerned.

Reserves at Time of Acquisition

At the time of acquisition of the properties mentioned, gas was being obtained from the Elk Basin Field (northwest of Lovell), and reserves here were 8 billion cu. ft.; the South Elk Basin Field, with remaining reserves of 6 billion, 390 million cu. ft.; the Big Polecat Field (also northwest of Lovell) with remaining reserves of 3 billion, 690 million cu. ft.; the North Garland Field, with reserves of 680 million cu. ft.; and the Northwest Elk Basin Field with reserves of 500 million cu. ft. In addition there was a reserve of 6 billion, 976 million cu. ft. in the Elk Basin Storage Field, and immediately before acquisition there was connected a small reserve from the South Byron Field (southwest of Lovell) of 2 billion cu. ft. The testimony was that there were approximately 28 billion cu. ft. of gas available to the Billings Gas Company which required 5 billion cu. ft, per year. The Rocky Mountain System, acquired at the same time, required one billion cu. ft.

per year. Therefore, the then available reserves would last for slightly in excess of four years. This made it necessary to immediately put additional gas into the system in order to handle the loads. If this had not been done, there would have been a shortage of gas for the consumers in the Billings Division. The situation, therefore, was critical, and one that demanded the immediate attention of the company.

New Reserves

In 1951, a connection was made with the Sand Creek Field south of Worland, Wyoming, which had a reserve of 10 billion cu. ft., and the Slick Creek Field with reserves of 16 billion cu. ft. A connection was made from the Big Horn Pipeline near the Worland Compressor Station, which gave the company gas reserves in the Little Buffalo Basin Field (west of Worland) of approximately 31 billion cu. ft. In August of 1952, a connection was made with the West Greybull Field (west of Greybull, Wyoming) which made available to the Billings System 5 billion cu. ft., and reserves from the Worland Field of about 40 billion cu. ft.

It was also pointed out that an additional 65 billion cu. ft. will be available from the Garland Field in 1961, under the terms of a contract with the Ohio Oil Company.

In summary regarding acquisition of new reserves of gas available for the Billings System, the company stated that it would be between twenty and twenty-five years before new sources would have to be looked to. This includes anticipated growth as well as present demand. This is a vast improvement over the 4-year supply available for the Billings gas consumers at the time the company took over management in 1951. Further, at the time of acquisition, the company did not have the capacity to carry peak loads for even one year.

Evidence was submitted relative to what other additions were necessarily made subsequent to, or contemporary with, the acquisition of the aforementioned reserves. Compressors and pipe of varying sizes and lengths were installed.

Storage Facilities

[1] The Little Buffalo Basin Field is the farthest distance, by pipeline, from Lovell, and in order to bring the gas therefrom into the Billings System, it is necessary to utilize a portion of the pipeline from Worland to Lovell. Approximately 11.5 billion cu. ft. of gas have been transmitted through this line which were either used, or stored for future use in the Billings System. Storage in the Elk Basin Field "firms up" a supply so that it reduces or eliminates entirely the need for expanding facilities to meet peak loads. The use of the storage basin makes possible the use of the facilities south of there on a 100 per cent load factor basis. It appears obvious to the commission that the company was exercising sound judgment when it elected to utilize storage facilities in the manner done, rather than attempt to enlarge its facilities to a point where peak loads in the Billings Division could be met through pipelines. This was the more economical of the two courses of action available to the company, and the savings realized are passed on to the ultimate consumer.

It was brought out in cross-exami-

nation that to be able to purchase a constant flow of gas from producers in the Worland area is an advantage to the company as well as the consumer because it is more economical to take gas in regular amounts and store it for use during seasons of heavy demand than to take only as requirements dictate. By so doing, gas that would be wasted in the summer is stored for use during the winter. No other course appears logical to this commission.

This commission has consistently followed the policy of looking into the manner in which a utility, whether private or public, conducts its affairs, especially when that utility requests an increase in its rates and charges for service to the public. The presumption is that it is conducting its business with economy and efficiency. Public Service Commission v. Tonopah Sewer & Drainage Co. (Nev) PUR1915F 95. As to the particular facet under consideration, this presumption is bolstered, if not supplanted, by the evidence regarding storage of gas for future use. The company, in storing sufficient reserves of gas for use during peak periods, eliminates the possibility of having to resort to preferential treatment of its customers; that is, it is not likely that it will be compelled to stop serving industrial users in order to meet residential demands during periods of severe winter weather. The company takes gas processed from the production of oil, and this was shown to be cheaper because it is taken at a firm rate or consistent volume. This was explained as follows by company's witness, H. M. Fredrickson, as follows:

"Most of the gas which we are purchasing from the Pure Oil Company and much of the other gas purchased in this area is gas produced in connection with the production of oil. Actually, in the ground much of it is dissolved in the oil and is released when the oil is brought to the surface and the pressure released. This gas is available only when the oil is produced since it would not be economical to release the gas from the oil resources. The conservation of that energy is important in the production of that oil, and no oil company would sell the gas off an oil reservoir."

The above statement pertains only to wells from which both oil and gas are produced. The consistent daily volume which the company is required to take, and store elsewhere, does not generally apply to dry gas fields. In those fields, the company has an annual requirement to meet, and not a daily quota. It was testified that the company's facilities were sufficiently adequate so that, in spite of heavy deliveries because of contractual arrangements with the various producers, the wasteful process of "flaring" was not resorted to.

Financial Condition

The company's Exhibit #2 was its balance sheet as of June 30, 1953. This showed the condition of the entire company, and was presented by its assistant treasurer. Total "assets and other debits" and total "liabilities and other credits" amounted to $71,272,-222.49. Total long-term debt was $32,375,420.25.

Exhibit #3 was the company's income account for the twelve months' period ending June 30, 1953. Operating revenue was $18,919,677.06. Total operating expenses were $15,975,-

585.44. Utility operating income was $2,944,091.62, and when other income was accounted for, this last figure was increased to $3,025,789.97. After deductions, this amount was reduced to $1,844,062.01 which was transferred to surplus. The commission fully realizes that the figures presented here are for the company's entire operation, and go far beyond the scope of the subject matter under consideration—the results for the service rendered in supplying gas to consumers in the Billings Division.

Billings Properties

[2-4] The company's Exhibit #4 was a statement of its properties as of June 30, 1953, which serve the Billings Division market in Montana. Some of these facilities are situated in Wyoming, but they are for the exclusive purpose of serving the said division. All figures given were based on purchased cost. The properties concerned extend from the Montana-Wyoming state line north to Billings, and certan other properties in Wyoming. The total plant account was $5,636,791.61. Included herein were properties for gathering, field dehydration and desulphurization, underground storage, transmission and compressor stations, transmission, distribution, and general categories such as office equipment and communciation equipment.

The company's Exhibit #5 was the income account for the Billings Division for twelve months ending June 30, 1953. Total operating revenues were $1,908,913. Total operating expenses were $1,470,353. These figures were for the entire division which also include certain markets in Wyoming. Income and expenses for the Montana portion, the portion for which the instant rate increase is sought were:

Total operating revenue	$1,566,212
Total operating expenses	1,205,817
Depreciation	166,262
General taxes	118,089
Income taxes	None
Total	1,490,168
Net operating revenues	$76,044

Income from the sale of appliances was excluded as was the cost relating thereto. This exclusion was correctly made.

In allocating what percentage of the properties situated in Wyoming were used and useful in serving the Billings Division and the consumers concerned there, the company did so on the basis of gas used in Montana and gas used in Wyoming. It was shown that 70.947 per cent of all the gas in the area subject to allocation was used in Montana; therefore that amount of the costs was also allocated to Montana. The division between Montana and Wyoming markets was clearly defined.

The largest single item of cost for the Billings System is the gas from the lower region in Wyoming flowing to the Worland compressor, thence through the line to Lovell where it enters the Billings System. It was estimated that it would be necessary to have not less than 15 million cu. ft. per day flow through in order to build up adequate storage during the summer months. This was the value used to determine cost of gas flowing into the system, some of which goes into storage to remain there because the level of stored gas is not sufficiently high, as yet, in the company's estimation. The charge against the Billings

System was made, of $875,768.96, the gas coming in at Worland and being valued according to the rules of the Federal Power Commission. This is for the twelve months' period. From this was deducted Wyoming's pro-rata share, $66,150.71, because some of the gas goes to Lovell, Cowley, and Powell, all Wyoming communities. The portion charged to Montana was $809,618.25, less that transferred to storage, $294,755.80, or a net amount of $514,862.45.

To this net figure was added the costs of buying and gathering gas locally, $233,174.24; gathering, $10,737.08; gas removed from storage $9,071.35. This totaled $767,845 (omitting pennies), which figure appears on Exhibit #5 as Montana's production expense.

Company's witness, H. N. Elvig, provided the commission with a detailed explanation of the manner in which allocation of costs had been made for presentation at the hearing. It was shown that by utilizing the Worland pipeline system, rather than the construction of a complete new pipeline system, the company was able to operate for the ultimate benefit of consumers in the Billings Division because of the economy of such an operation.

Further costs were considered, such as (1) storage, (2) transmission, (3) compression, (4) distribution, (5) customers' accounting and collecting, (6) sales promotion, and (7) administrative and general. Items (5), (6), and (7) were allocated between Montana and Wyoming on the basis of gross revenues. The amount of depreciation, $166,262.00, was computed at the rate of $3\frac{1}{2}$ per cent on that portion of the property shown in Exhibit #4, which is capable of being depreciated. It was not applied against right of way, storage reservoir, or the gas stored in the reservoir, or the cost of automobiles. Automobiles are depreciated on a mileage basis.

Of substantial interest to the commission was the fact that the company, when its deductions were taken, was not liable for either state or federal taxes on present earnings on the properties for which this increase is sought. General Purpose Tariff #62, Industrial and Commercial Tariff #73–M, and Industrial Natural Gas Tariff #89–M have all been in effect since 1944.

Exhibits #9 and #10 were the proposed new tariffs, as set out at the beginning of this order.

Company's Other Properties

[5, 6] Before proceeding further, brief comment should be made relative to the elimination from the commission's consideration of those parts of the company's business other than that with which the petition is concerned, namely, the properties used and useful in supplying natural gas service to customers in the Montana portion of the Billings Division. The company is engaged in supplying gas to other divisions, and also electric and steam to certain localities. These were not considered, other than in a very general way in Exhibit #2. The elimination of these unrelated services from this case follows a well-established principle.

Benjamin v. Great Northern Utilities Co. (Mont 1923) PUR1924B 705; Re Helena Light & R. Co.

(Mont) PUR1925E 1; Re Montana-Dakota Utilities Co. (Mont 1949) 78 PUR NS 33.

The eliminations were not questioned by the protestants.

This commission has consistently maintained the position that public utilities can operate several different departments, such as gas and electric, and can appear before regulatory bodies in regard to any one of them, separately. It has further maintained that portions of one department, such as the gas department, may also be segregated where allocations of properties and costs may be made. A segregation of natural gas costs has been held justified where a utility serves two communities under different conditions of cost of investment and service. Re Santa Maria Gas Co. (Cal 1921) PUR1922C 22. Under Montana law, the commission can prescribe classifications of service, taking into account the quantity used, the time when used, and other reasonable considerations. (Section 70–115, Revised Codes of Montana 1947.)

The situation presented in the instant case seems to clearly come under the observations set forth in the immediately preceding paragraph. We have here a complex network for the gathering, transmission, and distribution of gas from Wyoming into Montana for use in a well-described and defined portion of the company's system. Of necessity, the company serves both Montana and Wyoming communities simultaneously through a portion of this system. To do otherwise would not be economical, and would be evidence of unsound business practice. The manner in which the company allocated properties and costs was acceptable to the commission, and the figures and results arrived at are reasonable.

Rate of Return

[7, 8] The company's Exhibit #11 was entitled "Rate Base as of June 30, 1953 and Rate of Return." The purchased cost of the plant as of that date was $5,636,792. This is the plant in the Billings Division which serves the Montana portion under consideration. Depreciation in the amount of $1,099,709 was deducted leaving a net depreciated plant value of $4,537,083. To this was added working capital (natural gas in storage-current; inventory one per cent of gross plant; cash working capital) to make a proposed rate base of $4,790,557.

In arriving at these figures, the same rate of depreciation, 3½ per cent, was used for property constructed in recent years as was used in the income account, and an average condition of 70 per cent for those properties constructed earlier than 1945. The percentage of condition was applied to the depreciable portion of the properties, and a 100 per cent condition was applied to items that do not depreciate such as gas storage reservoirs and the gas in storage. A 60 per cent condition was applied to automotive equipment which deteriorates faster than other property. The sum total of these various depreciations was deducted from original cost to give the net depreciated plant figure above. The sums arrived at under the heading "Working Capital" in Exhibit #11 were according to Federal Power Commission formulae, and are accepted by this commission.

The company, by appropriate application of the Montana portion of the Billings Division's net earnings for the twelve months' period ending June 30, 1953 ($76,044) to the proposed rate base arrived at by depreciating purchased cost ($4,790,557), showed the commission that its rate of return on the properties used and useful was 1.59 per cent. The company presented figures on the reproduction cost new of the plant and the rate of return was greatly reduced. In arriving at a rate base, this commission considers all possible methods of valuation. In this case, purchased cost, purchased cost depreciated, and reproduction figures were considered.

The company's Exhibit #12, entitled "Statement Showing Prospective Rate of Return," was intended to inform the commission of what the results would have been for the twelve months' period ending June 30, 1953, if the rates requested had been in effect. Under the presently approved rates, as shown by Exhibits 6, 7, and 8, net income was $76,044 and the rate of return was 1.59 per cent, based on purchased cost depreciated.

Exhibit #12 set forth that the estimated increase in annual revenues from the proposed rate revision would be $434,523. This was arrived at after an intensive study of a 100 per cent sampling of meter readings for the twelve months ending March 31, 1953. The total revenue under the new rates would have been $1,929,680, or $434,523 over existing revenues.

It was pointed out that the first thing that happens to these proposed revenues is that both state and federal governments would participate because of income tax laws. The Montana rate is 3 per cent and the federal rate is 52 per cent, but each of the percentages is applied after deducting the other to make a composite deduction of 52.7 per cent. Of this additional revenue, then, $228,994 is paid in taxes. The remainder of $205,529 is the actual improvement in earnings. The increase in rate of return on the purchased cost less depreciation rate base would be 4.29 per cent. When this is added to the present rate of return on the same rate base, the estimated future rate of return is 5.88 per cent. Extensive cross-examination of the company's witness, H. N. Elvig, failed to disclose any errors or improper items.

Pursuant to a request by assistant attorney general, C. W. Leaphart, the company supplied the commission with extensive figures showing a breakdown of its gas plant located within Montana. Figures shown in columns 1, 9, and 12 of the breakdown are identical with figures shown on Table XXII of the company's 1951 annual report. The total of $5,101,081.24 in column 10 is comparable to the total in Exhibit #4 presented at the hearing, which was $5,636,791.61, except that the former figure is the balance as of December 31, 1951, and the total in Exhibit #4 is the balance as of June 30, 1953. The principal additions were in transmission mains and gas in underground storage. Titles in the breakdown were not strictly comparable because they conformed with those in the annual report prescribed by this commission, and some are combined. This information has been carefully scrutinized by the commission and no discrepancies were noted.

Company's Need for Relief

[9] As was previously stated, the company has been operating on a schedule of rates which were approved by this commission in 1944. It is common knowledge to all associated in any way with the world of finance and business that wages and prices have been steadily on the rise. This commission recognizes that increasing pressure has been brought to bear on the company and its predecessors in interest. The income of a public utility is fixed on the one hand by the rates it is obliged to charge, which rate is determined by a regulatory body. The commission cannot help but appreciate the position of this company which assumed the burden of serving the consumers in the Billings Division. In so assuming, it was compelled to take up where the former owners left off—with the same schedule of rates. The small margin of profit being realized at the time of purchase was necessarily diminished because the company found it mandatory to cultivate new sources of supply. There could be no alternative for the company but to look to this commission for relief in the form of increased rates and charges.

As we have stated in other orders, the financially sound public utility is as much a part of our economic life as any of a number of other segments which could be named. To keep it sound, it must be permitted to earn a fair rate of return on its investment so as to be in a position to stand on its own feet; that is, to pay the persons who work within its organization sufficient wages to attract competency and to pay sufficient dividends to investors, thereby attracting new capital. The ultimate goal sought in public utility regulation is adequate service to the largest number of citizens for reasonable cost. To deny the requested increase would be evidence of the commission's lack of appreciation of the facts.

In the present case, had the Billings Gas Company and the Rocky Mountain Gas Company continued on as they had, the sources of gas they had would have been thoroughly depleted within the next few years. That would have left the consumers in the serviced area to look to other means. Expensive conversions would have ensued, and, what is more important, the types of fuel available would most certainly have been more expensive than gas. By taking the steps it did, this company guaranteed the consumers a constant source of supply for the next twenty to twenty-five years. However, this insurance was not come by without capital outlay.

Reproduction Cost Figures

[10] The company's president, Cecil W. Smith, testified that a study had been made to determine what the reproduction cost new of the properties here concerned would be. This was said to be $8,432,069. When observed depreciation was deducted, the figure was set at $6,524,515. To this was added working capital of $253,474 giving a total rate base of $6,777,989. When this was applied to present income, $76,044, the rate of return was 1.12 per cent. If the proposed rates had been in effect, an additional net revenue of $205,529 would have been realized to give an additional rate of return of 3.03 per cent, or a total of 4.15 per cent.

It was stated previously that this commission does not ignore evidence of reproduction cost new, less depreciation, when it is offered. It considers it to be an important factor in any rate determination. In the Tobacco River Power Co. v. Public Service Commission (1940) 109 Mont 521, 33 PUR NS 151, 156, 98 P2d 886, our supreme court stated:

". . . The cost of reproduction new, less depreciation, is usually regarded as one of the most important, if not the dominant, factor, in the determination of value. . . . Original cost, assessment values, cost of reproduction new, prudent investment theory, public records mentioned in § 3884, *supra,* [Mont Rev Codes], and opinions of value are all means to an end, namely the determination of value. . . ."

The commission notes, however, that this case and its presentation are unique in two respects: First, the purchase of the properties by the company in 1951 is of such recent date that the purchase price, which was presumably fair and well considered by all parties, must be looked to as the best evidence of the value of the properties then purchased, plus the additions made to the system thereafter; and, secondly, the theory of reproduction cost new, less depreciation, was not vigorously urged upon the commission, but apparently was presented for the purpose of rounding out the picture. Nor was its introduction strenuously objected to by the protestants.

Acquisition of New Capital

The company's vice president, Fred R. Gamble, was its final witness. He explained the practical problems that face the company relative to securing capital. The communities served by the company are relatively small, for the most part, and the territory is sparsely populated. There has been in the past a detrimental effect on the businesses operating in the territory because of mortgage foreclosures and other factors; which has proven to be a burden on the company over the years. It has been necessary to overcome natural prejudices in large money centers which resulted in paying more for capital of all types. This situation has improved during the past fifteen years.

It was testified that there are three types of capital necessary for the proper operation of the company. First, the short-term loan-type of credit; second, long-term credit or mortgage bonds; third, equity-type capital which is broken down into (a) preferred and (b) common stock.

To secure term loans, it is necessary for the company to go into New York money markets where it meets direct competition with other borrowers from all over the United States. Rates at which the money is borrowed here are determined in these markets by competition.

The company is a BAA credit risk at the present time, which is fourth rate credit. First rate is AAA, second rate is AA, third rate is A, and fourth rate is BAA. The Montana Power Company recently secured an A rating on an issue of debentures, it was said.

One of the most vital factors in the growth and development of a utility, so that it will be able to render adequate service, is the proper maintenance of its credit. Inquiries from investment bankers have been received by the company recently which request infor-

mation as to why it has been unable to maintain its earnings, although its gross income has been substantially increased.

This commission fully realizes its responsibility to allow a utility to earn a fair rate of return upon its investment used and useful in supplying service. If it is not permitted to compete in the nation's money markets because of a poor showing due to inadequate rates resulting in insufficient earnings, it will be unable to expand and experience growth as it is required. The final result is inevitable if the circumstances were so, and that is, the consumer would have lower rates but an undependable service with a very limited life expectancy. The present money markets are tight, and new capital is not easily acquired. Without the proposed increases, the company would be seriously handicapped to compete in these markets, and this inability would eventually be reflected in the quality of service to the gas-using public. It is only through reasonable earnings that the company can expect to continue to attract the necessary capital to carry on its expansion and development program. The Billings Division is an example of the need for a financially sound utility because it is in a state of rapid growth. The utility must keep apace of that growth in order to adequately serve consumers there.

Mr. Gamble pointed out that gas was formerly purchased for as little as 5 cents per Mcf, but that today that cost has tripled, and, in some cases, it has quadrupled. There is also a possibility of a new pipeline being built to the Pacific Northwest which will be competing for gas in the Worland area. The company must be receiving sufficient income to allow it to so compete.

Protestants presented no evidence, but requested an opportunity to file briefs. The commission granted ten days in which to file briefs, and ten days to the company to reply. No briefs were filed by protestants, and the company, by letter dated November 10, 1953, advised that it waived its right to file a reply brief inasmuch as the protestants had not seen fit to file pursuant to their request.

Attorney General as Protestant

By § 72–124, Rev Code Mont 1947, the attorney general is designated attorney for the Board of Railroad Commissioners. By § 70–102, the board is made ex-officio Public Service Commission of Montana. Therefore, the attorney general is the statutorily appointed attorney for the Public Service Commission.

In the present hearing, the attorney general, through one of his assistants, appeared as a protestant. Whether he may elect to advocate or protest any petition heard before this agency is a question in the commission's mind in view of the statutes cited above. The commission desires, however, to dispell any doubt which any party might have at this time by stating that the attorney general was not acting as the attorney for the Board of Railroad Commissioners, ex-officio Public Service Commission, and that the instant appearance was not made at the request of the commission.

From the evidence and for the reasons stated, the commission makes the following:

Findings of Fact

1. That the Montana-Dakota Utilities Company is a public utility, duly authorized to operate and presently operating in the state of Montana, furnishing natural gas service in a number of cities and towns in the state.

2. That the said company is subject to the jurisdiction of this commission.

3. That by a letter dated September 8, 1953, the said company did petition the commission for authority to increase gas rates and charges for natural gas service to the public in Belfry, Billings, Bridger, Edgar, Fromberg, Joliet, Laurel, Park City, and Silesia, to the extent indicated by its schedules which are more fully set forth elsewhere in this order.

4. That the said company has been operating under a schedule of rates and charges for natural gas service in the area concerned which were approved in 1944 by this commission. At the time of the approval in 1944, the properties serving the gas consumers in the area were owned by the company's predecessors, the company having acquired said properties in 1951.

5. That a public hearing was conducted in connection with the said petition, after due notice as prescribed by statute, commencing at the hour of 9:30 o'clock A.M., on October 22, 1953, in the City Council Chambers in the city of Billings, Montana.

6. That at the time the said company acquired the properties under consideration, there was an urgent need for the acquisition of new gas reserves because of the depleted condition of reserves acquired along with the purchase of the properties.

7. That the said company took immediate steps to acquire new sources for gas, and new reserves were acquired in various parts of Wyoming which will enable the company to continue to serve the Billings System for from twenty to twenty-five years. The estimate includes the anticipated growth of the city of Billings from its present 50,000 population to approximately double that number in the next ten years.

8. That in acquiring new reserves it was necessary for the company to expand its facilities to a point where the cost of gas was necessarily substantially increased for use in the Billings System.

9. That the storage of gas in the Elk Basin Field by the company will enable it to take a constant flow of gas from those firms with which contracts have been made, and will permit peak loads to be met during the winter months in the Billings System without the higher cost of increased demands for gas during the cold months. The use of a storage basin makes possible the use of facilities to the south on a 100 per cent load factor basis.

10. That the more economical use of storage basins enables the company to supply gas to the Billings System at a lower cost, thereby passing along such savings as are realized by the use of storage to the ultimate gas consumer.

11. That the company's net operating revenues for the twelve months' period ending June 30, 1953, for the properties under consideration were $76,044.

12. That the purchased cost of the plant to the company as of June 30, 1953, was $5,636,792, which was depreciated by $1,099,709, for a net de-

preciated plant value of $4,537,083 to which was added working capital to make a purchased cost less depreciation figure of $4,790,557.

13. That the commission has considered purchased cost, purchased cost less depreciation, reproduction cost, and reproduction cost less depreciation, and all other evidence of value, and all other factors in the case, and it is its judgment that it should determine a present fair value of the property. The commission finds the fair value of the property used and useful in the service here involved to be $5,000,000 as of June 30, 1953.

14. That the rate of return on the present fair value of this property for the twelve months ending June 30, 1953, was 1.52 per cent, which is entirely too small a rate of return.

15. That the adoption of the proposed new rates will allow the company to earn an additional $434,523 of which 52.7 per cent is paid in state and federal taxes, or $228,994, leaving a net increase in revenue of $205,529.

16. That the new net revenues $205,529, permitted to be earned by the company by adopting the proposed schedules, plus those being earned under the present rates, $76,044, will furnish a rate of return of 5.63 per cent on the present fair value as set forth above in Finding #13.

[11] 17. That the new rate of return of 5.63 per cent is reasonable, and will allow the company to earn sufficient revenues for it to enjoy the financial health and integrity which are requisite to the successful and efficient operation of a public utility.

18. That the proposed schedule of rates is not unreasonable, and will not be burdensome to the gas consumers of the Billings System.

19. That increased costs of materials, equipment, labor and increased taxes since 1944 have resulted in higher costs to the utility of furnishing natural gas service.

20. That the allocation of properties of the Billings System which are under consideration here are entirely proper.

21. That the present natural gas rates are not adequate and do not yield a reasonable rate of return to the company.

22. That the adoption of the proposed rates is necessary for the continuance of future reliable natural gas service to the public, and therefore should be granted and allowed.

Conclusions of Law

The commission concludes as a matter of law that the rates and charges for natural gas service as applied for by the Montana-Dakota Utilities Company should be, and are hereby, approved.

ORDER

Now, therefore, at a session of the Board of Railroad Commissioners, ex-officio Public Service Commission of the State of Montana, held in its offices in the Capitol, Helena, Montana, on November 12, 1953, there being present Chairman John E. Henry, Commissioner Austin B. Middleton, and Commissioner Leonard C. Young, there regularly came before the commission, for final action, the matters and things in Docket No. 4113, and the commission now being fully advised in the premises;

It is therefore *ordered* that the application of Montana-Dakota Utilities

Company be, and the same is hereby approved, effective December 15, 1953, or with first billing period thereafter.

It is *further ordered* that a full, true, and correct copy of this order be sent forthwith by first-class United States mail to the applicant and all appearances herein.

The foregoing order was unanimously adopted by the Board of Railroad Commissioners of the State of Montana, ex-officio Public Service Commission.

UNITED STATES COURT OF APPEALS, NINTH CIRCUIT

State of Washington Department of Game et al.

v.

Federal Power Commission

No. 13289
207 F2d 391
October 5, 1953

APPEAL *from Federal Power Commission order authorizing municipality to construct, operate, and maintain hydroelectric power project; order affirmed. For commission decision, see (1951) 92 PUR NS 79.*

Water, § 20.3 — Power project license — Effect of state laws.

1. The Federal Power Commission, in authorizing a municipality to construct and operate a hydroelectric power project, properly acted within the scope of its discretion in not requiring the municipality to show compliance with state laws regulating the construction of dams, where a compliance with those laws would have prevented the development of the project which, in the commission's opinion, was best adapted to a comprehensive plan for the development of a concededly navigable stream, p. 117.

Water, § 2 — Federal regulation of navigable waters — Power projects.

2. The federal government's constitutional authority to control the erection of structures in navigable waters is superior to that of the state, p. 117.

Water, § 20.3 — Power project license — Effect of state laws.

3. State laws cannot prevent the Federal Power Commission from issuing a power project license or bar the licensee from acting under the license to build a dam on a navigable stream, since the stream is under the dominion of the United States, p. 117.

Appeal and review, § 28.1 — Federal Power Commission orders — Conclusiveness of findings.

4. Federal Power Commission findings are conclusive upon the courts if supported by substantial evidence, p. 118.

Appeal and review, § 28.1 — Federal Power Commission orders — Independent investigation.

5. The court, reviewing an order of the Federal Power Commission, may not retry the controversy, substitute its judgment for that of the commission as to any doubtful or debatable questions of fact, or reverse the challenged order because the commission has rejected the views of a state as to what inferences should be drawn from the evidence, since the commission is the agency which weighs the relevance of factual data, p. 118.

Appeal and review, § 28.1 — Federal Power Commission order — Judicial declaration of policy.

6. The court reviewing an order of the Federal Power Commission granting a power project license, may not prescribe a policy in relation to power projects on navigable waters, p. 119.

APPEARANCES: Don Eastvold, Attorney General, William E. Hicks, Harold A. Pebbles, and Lee Olwell, Special Assistants Attorney General, Olympia, Washington, for petitioners, State of Washington.

Stephen J. Morrissey, Seattle, Washington, for petitioner, Washington State Sportmen's Council, Inc., Clarence M. Boyle, Corporation Counsel, Dean Barline, Asst. Corporation Counsel, E. K. Murray, Special Counsel, city of Tacoma, Washington, for intervener, city of Tacoma, Washington.

Bradford Ross, General Counsel, Willard W. Gatchell and Howard E. Wahrenbrock, Assistants General Counsel, John C. Mason, Attorney, Federal Power Commission, Washington, D. C., for respondent.

Before Stephens, Healy, and Orr, CJJ.

STEPHENS, CJ.: Since 1893, the city of Tacoma, a municipal corporation in the state of Washington, has produced, transmitted, distributed, and sold for use electric energy generated in its own steam electric and hydroelectric plants. On December 28, 1948, the city filed with the Federal Power Commission an application for a license[1] to construct, operate, and maintain two dams (one designated as the Mossyrock, the other as the Mayfield) with appurtenant power facilities on a state of Washington river known as the Cowlitz. The Cowlitz river flows southerly into the Columbia river seaward of Portland, Oregon.

The Mossyrock Development is proposed to be located 65 miles upstream from the Cowlitz mouth and is to comprise a dam rising 500 feet above bedrock which will intercept the river runoff and store the accumulated water in a natural reservoir 21 miles in length. The flow will be equated through the dam and through a hydroelectric power plant having an initial power potential of 225,000 kilowatts and an ultimate potential of 75,000 more kilowatts.

The proposed Mayfield Development is to be located 13½ miles downstream from Mossyrock and is to consist of a dam rising 240 feet above bedrock, a power plant with an initial

[1] Section 4(e) of the Federal Power Act, Title 16 USCA § 797(e).

potential of 120,000 kilowatts with an ultimate potential of an additional 40,-000 kilowatts.

The Federal Power Commission took jurisdiction of the application and, in an order issued March 8, 1949, 8 FPC 748, found that the construction and operation of the project would affect lands of the United States, that the Cowlitz river was navigable below the site of the proposed dams and that their construction would affect the interests of interstate and foreign commerce. Accordingly, it concluded that Tacoma could not legally build the dams without a Federal Power Commission license.[2]

Thereupon the commission ordered a public hearing to determine whether the license should issue. The "State of Washington Departments of Game," of "Fisheries," and the "Washington State Sportsmen's Council, Inc." (a private corporation), all hereinafter to be called "petitioners", were permitted to intervene in opposition to the city's application. The attorney general for the state appointed a special assistant attorney general to represent all persons not otherwise represented whose views were in conflict with the State Departments of Game and Fisheries. Thus, the state of Washington by its attorney general, and the people of Washington holding views not in harmony with the state's official position, and the applicant city of Tacoma were represented at the hearing which was had before an examiner.

Having heard the evidence offered by the interested parties, the presiding examiner issued his "Recommended Decision" in which he made findings of fact with his conclusion that the application for license should be denied because the proposed construction would conflict with the comprehensive plan[3] for developing the Columbia river basin and for that reason would not be best adapted "for other beneficial public uses, including recreational purposes"; . . .[4] because "it has not been shown that the development of the Cowlitz river for power at this time is such an economic necessity as to warrant the undertaking proposed, so long as that construction may be deemed probably injurious to the protection and maintenance of the valuable runs of anadromous fish [fish which return to their spawning grounds for spawning] now utilizing the river."[5]

The city of Tacoma, the special assistant to the state attorney general (opposing the position of the state attorney general), and the commission staff counsel filed exceptions to the recommended decision. The commission ordered oral argument[6] and subsequently filed an opinion and order granting the license [(1951) 92 PUR

[2] Section 23(b), Federal Power Act, Title 16 USCA § 817.

[3] The Fish and Wildlife Service of the Department of the Interior has formulated what is known as the Lower Columbia River Fishery Plan. This plan, which includes within its scope the Cowlitz river, contemplates the improvement of the fish runs on the Columbia river through the co-operative efforts of Oregon, Washington, and the United States Fish and Wildlife Service in the removal of obstructions to the passage of fish, the abatement of pollution, the screening of diversions, and the use of hatcheries and fish refuges.

"The Review Report on the Columbia River and Tributaries," prepared by the Army Corps of Engineers, included with approval the Lower Columbia River Fishery Plan.

[4] Section 10(a), Federal Power Act, Title 16 USCA § 803(a).

[5] Record on Appeal, pp. 170, 171.

[6] Title 18 CFR § 1.31.

NS 79]. We summarize the pertinent findings and conclusions of the commission as follows:

1. The commission reasserts its jurisdiction and describes the physical characteristics of the project.

2. The project will increase the navigability of the Cowlitz river by increasing the average minimum flow below the dams.

3. The reservoirs are easily accessible by state highway for recreational opportunities.

4. An annual increase of 40,000 kilowatts in peak load electric energy requirements in the Tacoma-Seattle area is anticipated. This estimate does not include defense activities.

5. There is a power shortage in the Northwest, especially in the Puget Sound area.

6. A 10-year power shortage is anticipated. Thus, new power sources must be developed to supply new loads.

7. There is no evidence that any other hydroelectric project in lieu of the Cowlitz project could be constructed as quickly or as economically.

8. The cost is estimated at $135,000,000 exclusive of fish handling facilities.

9. The cost of fish handling facilities is estimated at $7,100,000.

10. The annual value of Cowlitz power will exceed the cost of production by at least $1,700,000, based on a 2 per cent interest rate.

11. There will be substantial flood control and navigation benefits.

12. The debt incurred in building the project can be retired in a reasonable time.

13. The Lower Columbia River Fishery Plan[7] conceived around 1945 by the Fish and Wildlife Service of the Department of the Interior and approved by the United States Bureau of Reclamation and by the Army Engineers, contemplates individual state action with the aid of congressional appropriations.

14. The ladder system of passing fish upstream should not be rejected although engineering and biological studies must still be made.

15. Hauling and trapping should be a satisfactory alternate for getting fish upstream.

16. Testing and experimentation should make it possible to develop means of successfully passing fish downstream.

17. The value of the fish spawning above the dams equals the value of the fish spawning below the dams.

18. The fish below the dams will not be injured by the dams.

19. The project is economically and financially feasible.

20. Tacoma is a municipality within the meaning of § 3(7)[8] of the act and has submitted satisfactory evidence of compliance with the requirements of all applicable state laws "in so far as necessary to effect the purposes of a license for the project."[9] Finding No. 53, Transcript of Record on Appeal, page 551.

21. Tacoma has submitted satisfactory evidence of financial ability to complete the project.

22. There is no conflicting application.

23. Due notice has been given to all interested parties.

24. "Under present circumstances

[7] See footnote 3, *supra*.
[8] Title 16 USCA § 796(7).
[9] Cf. Section 9(b), Federal Power Act, Title 16 USCA § 802(b).

and conditions and upon the terms and conditions hereinafter included in the license, the project is best adapted to a comprehensive plan for improving or developing the waterway involved for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, for the conservation and preservation of fish and wildlife resources, and for other beneficial public uses including recreational purposes."[10] Finding No. 59, Transcript of Record on Appeal, page 552.

Petitioners sought a rehearing, but it was denied. Thereupon, they sought review in this court.[11]

It is provided in the Federal Power Act that:

"§ 9. Each applicant for a license under this chapter shall submit to the commission—

. . . . .

"(b) Satisfactory evidence that the applicant has complied with the requirements of the laws of the state . . . within which the proposed project is to be located with respect to bed and banks and to the appropriation, diversion, and use of water for power purposes and with respect to the right to engage in the business of developing, transmitting, and distributing power, and in any other business necessary to effect the purposes of a license under this chapter. . . ."

Those opposing the application challenge the authority of the commission to issue a license upon the ground that the quoted section has not been complied with, in that:

1. Tacoma has not obtained from the State Supervisor of Hydraulics a permit for the diversion of water as required by Chap 112, § 46, State of Washington Laws of 1949.

2. Tacoma has not obtained the written approval of the State Directors of Fisheries and of Game as to plans and specifications for the proper protection of fish life in connection with the construction of the dams as required by Chap 112, § 49, State of Washington Laws of 1949.

3. Both of the proposed dams exceed the 25-foot height limit which the Washington legislature put upon the construction of dams on the Cowlitz river or on any stream of the state tributary to the Columbia river downstream from the McNary dam and within the migratory range of anadromous fish. The Columbia River Sanctuary Act, Chap 9, § 1, State of Washington Laws of 1949.

The rationale of the objectors' contentions has already been considered

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[10] Cf. Section 4(e), Federal Power Act, Title 16 USCA § 797(e), second proviso, and § 10(a), Federal Power Act, 16 USCA § 803 (a).

[11] Section 313, Federal Power Act, 16 USCA § 825*l*, (a), limits rehearings to "any person, state, municipality, or state commission aggrieved by an order issued by the commission." And it confines review by this court to those who have applied for rehearing. Thus, as Tacoma contends in its brief, petitioners are not properly before this court unless they fit one of the categories listed in § 825*l* (a), as defined by § 796, Title 16 USCA.

Initially we note that this court has jurisdiction because the Washington State Sportsmen's Council, Inc., one of the petitioners, is a person within the definition of § 796(4), since it is a corporation. The State of Washington Department of Game and the State of Washington Department of Fisheries are proper parties since they represent certain interests of the state of Washington in this controversy. All are "parties aggrieved" since they claim that the Cowlitz project will destroy fish in which they, among others, are interested in protecting.

and rejected by the Supreme Court in First Iowa Hydro-Electric Co-operative v. Federal Power Commission (1946) 328 US 152, 90 L ed 1143, 63 PUR NS 193, 66 S Ct 906. In that case the United States Supreme Court analyzed § 9(b) in the light of an Iowa statute which prohibited the building or maintaining of a dam on any navigable stream of the state of Iowa without a permit from the executive council of the state. In order to obtain a state permit, an applicant was required to comply with state regulation of the project. The Supreme Court held that the Iowa licensing provisions were in direct conflict with the Federal Power Act, and that if a state license were a "condition precedent to securing a federal license for the same project under the Federal Power Act . . . the executive council of Iowa [would possess] a veto power over the federal project. Such a veto power easily could destroy the effectiveness of the federal act." 328 US at p. 164, 63 PUR NS at p. 199, 66 S Ct at p. 911. Indeed, if § 9(b) were construed to require compliance with state laws in every instance, it would make every application to the Federal Power Commission subject to state control in direct contradiction to the congressional mandate that the project be subject to "the judgment of the commission."[12] Therefore, the Supreme Court concluded, § 9(b) does not in itself require compliance with state law; it only empowers the commission to require such evidence of compliance with state law as, in the commission's judgment, would be "appropriate to effect the purposes of a federal license on the navigable waters of the United States." First Iowa Hydro-Electric Co-operative v. Federal Power Commission, *supra*, 328 US at p. 167, 63 PUR NS at p. 200, 66 S Ct at p. 913.

[1, 2] The commission in our case acted within the scope of its discretion in not requiring Tacoma to show compliance with the laws of the state of Washington regulating the construction of dams in Washington, because compliance with those laws would have prevented the development of the Cowlitz project; and in the opinion of the commission of the Cowlitz project was "best adapted to a comprehensive plan" for the development of a concededly navigable stream. The federal government's constitutional authority to regulate commerce and navigation includes the "power to control the erection of structures in navigable waters," United States v. Appalachian Electric Power Co. (1940) 311 US 377, 405, 85 L ed 243, 36 PUR NS 129, 61 S Ct 291, 298. The federal government's power over navigable waters is superior to that of the state. McCready v. Virginia (1877) 94 US 391, 24 L ed 248.

[3] The objectors further contend that Tacoma, as a creature of the state of Washington, cannot act in opposition to the policy of the state or in derogation of its laws.[13]

Again, we turn to the First Iowa Case, *supra*. There, too, the applicant[14] for a federal license was a creature of the state and the chief opposition came from the state itself. Yet,

[12] Title 16 USCA § 803(a), § 10(a), Federal Power Act.

[13] See Williams v. Baltimore (1933) 289 US 36, 77 L ed 1015, 53 S Ct 431.

[14] First Iowa Hydro-Electric Cooperative, a co-operative association organized under the laws of Iowa.

the Supreme Court permitted the applicant to act inconsistently with the declared policy of its creator, and to prevail in obtaining a license.[15]

Consistent with the First Iowa Case, *supra,* we conclude that the state laws cannot prevent the Federal Power Commission from issuing a license or bar the licensee from acting under the license to build a dam on a navigable stream since the stream is under the dominion of the United States. However, we do not touch the question as to the legal capacity of the city of Tacoma to initiate and act under the license once it is granted. There may be limitations in the city charter, for instance, as to indebtedness limitations. Questions of this nature may be inquired into by the commission as relevant to the practicability of the plan, but the commission has no power to adjudicate them.[15a]

[**4, 5**] We turn now to a consideration of the petitioners' attack upon the findings of the commission. We will, of course, set aside an order of the commission if we find that it is not based upon findings of fact which are supported by substantial evidence.[16] But to the extent that the findings of the commission are "supported by substantial evidence, [they are] conclusive."[17] In reviewing an order of the commission, "this court may not retry the controversy, substitute its judgment for that of the commission as to any doubtful or debatable questions of fact, or reverse the challenged orders because the commission has rejected the views of the state . . . as to what inferences should be drawn from the evidence. The commission 'is the agency which weighs the relevance of factual data.' See National Labor Relations Board v. Stowe Spinning Co. (1949) 336 US 226, 231, 93 L ed 638, 69 S Ct 541, 545." Iowa v. Federal Power Commission (CA8th 1949) 82 PUR NS 172, 179, 178 F2d 421, 427, certiorari denied (1950) 339 US 979, 94 L ed 1383, 70 S Ct 1024.

Petitioners concentrate their attack upon what we shall classify as two groups of findings:

1. The necessity of the dams to alleviate a power shortage in the Northwest.

2. The effect of the dams upon the fish runs in the Cowlitz river.

First, as for the necessity of the dams: It is common knowledge that there was a power shortage in the Northwest in the winters of 1947, 1948 and 1948, 1949, and that the further expansion of other power facilities in the Northwest which petitioners stress must be weighed against the continued growth of industrial activity in the area, and that in years of low rainfall the capacity of all hydroelectric plants is curtailed. And national defense is a prime element for the commission's consideration. In short, an estimated necessity for

[15] First Iowa Hydro-Electric Co-operative v. Federal Power Commission (1946) 328 US 152, 90 L ed 1143, 63 PUR NS 193, 66 S Ct 906; Iowa v. Federal Power Commission (CA8th 1949) 82 PUR NS 172, 178 F2d 421, certiorari denied (1950) 339 US 979, 94 L ed 1383, 70 S Ct 1024.

[15a] See Tacoma v. Taxpayers of Tacoma, No. 32,411, Oct. 14, 1953, which is now pending before the supreme court of the state of Washington (262 P2d 214.)

[16] Pacific Power & Light Co. v. Federal Power Commission (CCA9th 1938) 25 PUR NS 458, 98 F2d 835, affirmed (1939) 307 US 156, 83 L ed 1180, 28 PUR NS 93, 59 S Ct 766.

[17] Section 313(b), Federal Power Act, Title 16 USCA § 825*l* (b).

electric energy, quantitatively speaking, must not be determined alone upon present demand projected into the future in accordance with normal circumstances. Paradoxically, abnormality is the normal of the day we live in.

The Cowlitz project is but 60 miles from Tacoma, and will permit of a much shorter transmission distance than any of the other existing or proposed hydroelectric developments. And while steam electric plants can be built which would aid in Tacoma's electrical needs, we have no part in the decision which Tacoma has arrived at and which the commission has agreed with as to the desirability of one source of electric energy over the other.[18] Nor can we weigh the benefits of flood control, improved navigation of the Cowlitz, and accessibility of recreational areas. There is substantial competent and persuasive evidence on these subjects.

We must now consider the fate of the fish on the Cowlitz river. Herein lies the chief concern of those who object to the construction of the dams. They contend that the project will destroy the runs of spring Chinook salmon, fall Chinook salmon, silver salmon, steelhead trout, cutthroat trout, and smelt which use the Cowlitz as spawning grounds. They point out that to pass each of the dams, the fish will have to climb ladders of 325 feet at Mossyrock, and 185 feet at Mayfield, each of which is considerably higher than the Bonneville dam's ladder of 67 feet, the highest dam over which migratory fish have been successfully passed to date.[19] They further argue that, even if some fish should manage to reach their spawning grounds above the dams, their number would be greatly depleted; and furthermore, the fingerlings, when hatched, would face the further task of avoiding destruction in the hydroelectric penstocks in their journey to the sea to mature and, in their time, to return in the mysterious cycle of perpetuating the species.

There is evidence that only one-half of the fish spawn above the dam sites, and elaborate plans are contemplated by the city and required by the commission's order looking to the safe transmission of the fish to the spawning areas above the dams.

[6] As we see it, it is not within our jurisdiction to prescribe a policy. The federal government has the jurisdiction over navigable rivers and it is within the power of the Congress and the Executive to prescribe the policy in relation thereto. If the dams will destroy the fish industry of the river, we are powerless to prevent it. It is admitted that the fish industry on the river is an important one and every known method should be used to preserve it. If it is the law (and we are not holding one way or another) that the commission is held to the use of discretion in its requirements as to the preservation of any use to which a navigable stream is currently being put, we hold that the commission has

[18] Because the electric energy plants of the northwestern states produce little or no energy beyond their everyday demands, the major systems have entered into a "power pool" by interconnecting their distributing lines. By this arrangement an unusual demand upon any one plant may be met by the transfer of energy from another plant. The city of Tacoma is an integral member of the "pool."

[19] The McNary dam, now nearing completion, will require migratory fish to climb about ninety feet by means of ladders.

given the subject of the fishing industry due consideration and has not abused its discretion.

There is ample evidence to sustain the commission in the exercise of its judgment that the Cowlitz project is "best adapted to a comprehensive plan[20] for improving or developing a waterway [i.e., the Cowlitz river] . . . for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water-power development, and for other beneficial public uses, including recreational purposes."[21] Title 16 USCA § 803 (a).

We decline to interfere with the commission's order.

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[20] The Federal Power Commission determined upon adequate evidence that the Lower Columbia River Fishery Plan is not inconsistent with the Federal Power Commission's plan for developing the Cowlitz river, since the license issued by the commission for the construction of the Cowlitz project requires the applicant city of Tacoma to provide facilities for the protection of the fish which spawn in the Cowlitz river.

[21] Cf. Finding No. 59 of the commission, quoted *supra* as No. 24 of the summarized findings.

MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Re Short Line of Massachusetts, Inc.

D.P.U. 10606

Re Charles Bargamian et al., Officers of North Providence Transportation Company, D.P.U. 10607

November 16, 1953

PROCEEDING *to determine why motor carrier certificate should not be revoked, and petition for approval of transfer of stock; show cause proceeding terminated and transfer of stock approved.*

Consolidation, merger, and sale, § 9 — Commission powers — Illegal transfer of motor carrier stock — Ratification.

1. The sale of motor carrier stock without department approval is void and may not be ratified, but where the contract of sale is executory, the transaction is not void and may be approved, p. 121.

Certificates, § 143 — Transfer — Improved service — Motor buses.

2. Authority to transfer motor bus operating rights was granted where the transferees were shown to be experienced and qualified operators and had agreed to replace present unsatisfactory facilities and where it was shown that the transferor had managed the company with a disregard for public interest, p. 122.

APPEARANCES: Albert Lisker, for Lisker interests; George Ajootian, for Charles Bargamian, et al.; Edward N. Gadsby, Counsel, for Department.

By the DEPARTMENT: Short Line of Massachusetts, Inc., is a common carrier of passengers operating interstate between Putnam, Connecticut, and Worcester, Massachusetts. It has intrastate rights over this route between Worcester and Oxford, Auburn and Webster. As such intrastate operator, it is subject to the provisions of Chap 159A of the General Laws.

On March 13, 1953, this carrier filed certain tariffs containing schedules of increased rates of fare over its lines in Massachusetts. The operation of these schedules was suspended by order of the department and an investigation commenced in D.P.U. 10443 as to their propriety. In the course of the hearings held in connection with such investigation, it appeared that the present operators of the corporation were not those who were in control at the time that the transfer to Short Line of Massachusetts, Inc. of its certificates of public convenience and necessity was approved by the department. See Re Short Line, Inc., D.P.U. 9657, Nov. 30, 1951. We authorized such transfer at that time with great reluctance and only because the Interstate Commerce Commission had exercised its own jurisdiction favorably. We said that we did not like the situation, and our worst fears have most certainly been amply justified. See Re Interstate Busses Corp. D.P.U. 10227, Dec. 23, 1953.

In the evidence in D.P.U. 9657 there appeared testimony that all of the capital stock of Short Line of Massachusetts, Inc., to whom it was proposed to transfer certain of the certificates theretofore held by The Short Line, Inc., was then held by three individuals, Demaris, Ryan, and Chase. At the hearing in D.P.U. 10443, it appeared that one Charles Bargamian then had some claim to such securities. Under section 7A of G.L., Chap. 159A, as amended by Chap 449 of the Acts and Resolves of 1949, it is provided that no such acquisition may be effected without the consent of the department. Such consent had not been obtained. Any transfer sought to be accomplished without our consent is void. Re G. R. Fischer Co. (1950) D.P.U. 8823, 85 PUR NS 84. It was also clear that the service being rendered under these certificates had deteriorated to the point where the public interest was adversely affected, and that Demaris, the original principal in Short Line of Mass., Inc., apparently had little or no interest in the welfare of the citizens of Massachusetts being served under these certificates.

Upon being apprised of this situation, the department opened proceedings in D.P.U. 10606, looking to the revocation of the operating right of The Short Line of Massachusetts, Inc. At the same time, Charles Bargamian filed an application for the consent of the department to the acquisition by him of this stock. The two matters were consolidated and public hearings were held on a joint record in Boston on July 28 and November 4, 1953. Prior to the reopened hearing in November, the carrier requested permission to withdraw its application for increased fares, which was granted, and an order was entered closing the department's investigation in D.P.U. 10443.

[1] It now appears that Demaris, Ryan, and Chase have assigned their

stock certificates in blank and that they have been delivered to Bargamian and his associates. In the absence of the statutory provisions we have referred to, this would be enough to vest title to the stock in the transferees. See G.L., Chap 155, § 24. However, the evidence is, and we so find, that the contract of sale of these securities is still executory, as distinguished from the situation presented in the Fischer Case, D.P.U. 8823, *supra,* and we are not prevented from approving of the proposed transfer under the cases to which we there referred and which hold that a void transaction of this nature cannot be ratified.

It further appears that Bargamian and his associates are experienced and qualified operators. They have agreed, upon approval of the proposed acquisition, to acquire additional equipment for use in their intrastate operations which will displace some of the present unsatisfactory facilities and there should result a distinct improvement in service. Our inspectors are being instructed to see that such new equipment is placed in service, and that the public is given adequate service by the new management.

[2] There is no doubt but that this corporation's affairs have heretofore been managed with a high-handed disregard for the public interest involved. The evidence is clear that its operating property was transferred willy-nilly, that preposterous rentals were charged for equipment rented from affiliated interests, that no adequate books were kept and that, were we not satisfied that the proposed new management is of a different stamp and has no affiliation with the past operators, we would be perfectly justified in rescinding these operating rights without further ado. Under the circumstances, however, we believe that the public interest will best be served if we permit Bargamian to show whether he can operate satisfactorily, at least for a reasonable probationary period.

For the foregoing reasons, after due notice, a public hearing and investigation, it is hereby

Ordered: That the transfer and sale of 166⅔ shares of the capital stock of The Short Line of Massachusetts, Inc., to Charles Bargamian (75 shares), John Bargamian (75 shares), and Margaret Bargamian (16⅔ shares) is hereby approved; and it is *further*

Ordered: That the investigation by the department on its own motion in D.P.U. 10606 be and the same hereby is terminated and closed.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Samuel C. Zimmerman et al.

v.

Borough of Strasburg

Complaint Docket No. 15883
October 13, 1953

COMPLAINT *to require municipal water plant to furnish service outside of municipal limits; service ordered.*

Service, § 126 — Municipal plant — Duty to serve — Extraterritorial service.
A municipal plant may refuse to accept customers beyond territorial limits or along the line of its service main, but it may not serve some and refuse others.

By the COMMISSION: By this proceeding, complainants, Samuel C. and Blanche Zimmerman, seek to require respondent, borough of Strasburg, to make water service available at their property located along state highway route No. 896, approximately seven-tenths of a mile east of the borough of Strasburg, in Strasburg township, Lancaster county.

The borough of Strasburg owns and operates a water supply system and has a water main, leading from its source of water supply to the borough distribution lines, which is installed along state highway route No. 896. The main passes in front of the complainants' property, situated across the highway from the water main, and the only necessary construction is the installation of a service line from the main to complainants' property.

Complainants made written application to the borough for water service on August 28, 1952, and no action was taken on the application. The instant complaint was filed with the commission on March 5, 1953. Hearing on the matter was held in Lancaster on June 2, 1953.

Complainant testified that approximately twenty-five consumers, all located in Strasburg township, now receive service from the borough's water main along state highway route No. 896, from which he desires to obtain service. These consumers are situated both east and west of his property.

Respondent's answer to the complaint rests entirely on the supposition that the borough's water supply is not sufficient to furnish service to additional consumers residing beyond the borough limits. It did not, however, submit any testimony to substantiate its position, merely stating that an engineering survey was being made by a firm of engineers to determine the sufficiency of the water supply available

to furnish service to its present consumers.

Respondent's witnesses stated that the survey was begun in the latter part of 1952, but no report of the results obtained by the survey had been submitted to June 2, 1953, the date of the hearing. The hearing record was terminated with a request from the borough to have the record held open for a period of ninety days pending receipt of the water survey report. The 90-day period elapsed September 1, 1953, and no report as to the results attained by the survey has been received by the commission.

Controlling in this case are certain sections of the Public Utility Law of 1937, P.L. 1053, as amended.

Article IV, § 401, of the law provides that . . . Any public utility service being furnished or rendered by a municipal corporation beyond its corporate limits shall be subject to regulation and control by the commission as to service and extensions, with the same force and in like manner as if such service were rendered by a public utility.

Article IV, § 402: No public utility shall, as to service, make or grant any unreasonable preference or advantage to any person, corporation, or municipal corporation, or subject any person, corporation, or municipal corporation to any unreasonable prejudice or disadvantage. No public utility shall establish or maintain any unreasonable difference as to service, either as between localities or as between classes of service, but nothing herein contained shall be deemed to prohibit the establishment of reasonable classifications of service.

The rights and powers of the commission in this proceeding are substantiated in a decision of the Pennsylvania supreme court in Reigle v. Smith (1926) 287 Pa 30, 35, 134 Atl 380, which stated: ". . . the borough could refuse to accept any customers beyond its limits, or along the line of its service main, but so long as the privilege is granted to some, it cannot refuse to others."

From the foregoing it is clear that the commission has jurisdiction in the instant complaint, and any policy adopted by council of the borough of Strasburg denying any further connections to its water main beyond the borough limits, including water service to the complainants, Samuel C. and Blanche Zimmerman, cannot supersede the jurisdiction of this commission; therefore,

It is *ordered:*

1. That the complaint be and is hereby sustained.

2. That borough of Strasburg make its water service available, at its sole cost and expense, to the complainants, Samuel C. and Blanche Zimmerman, within thirty days of service of this order.

SOUTH DAKOTA PUBLIC UTILITIES COMMISSION

Re Railway Express Agency, Incorporated

F-2390
October 12, 1953

PETITION *by express agency for increase in intrastate freight rates to conform with interstate increases; granted.*

Rates, § 370 — Express — Equalization of state and interstate rates.

1. Authority to increase intrastate express rates to the same extent that interstate rates had been increased was granted where the maintenance of the higher interstate rates would have resulted in unjust prejudice and discrimination against interstate shippers and undue advantage and preferential treatment for intrastate shippers, p. 125.

Rates, § 649 — Formal hearing — Verified statements in lieu of.

2. Authority to increase intrastate express rates to the same extent that interstate rates had been increased was granted after an express agency had submitted verified statements and exhibits in lieu of a formal hearing, with the understanding that the increases were permissive and not mandatory and subject to complaint and further hearing if meritorious reasons were advanced by interested shippers, p. 125.

By the COMMISSION:

[1, 2] A petition was filed by the Railway Express Agency, Incorporated, on August 10, 1953, asking for the same increases on South Dakota intrastate traffic as was granted by the Interstate Commerce Commission on July 20, 1953, in the Ex Parte 185 proceedings on interstate traffic, which increases became effective August 20, 1953. A protest was made to this commission against the granting of these increases without a hearing and a hearing was set for September 29, 1953. This objection was withdrawn, however, and in that a formal hearing appeared to be unnecessary the applicant, Railway Express Agency, Incorporated, was notified that verified statements and exhibits in connection with the application would be acceptable, in lieu of the personal appearances of witnesses on the date set, September 29, 1953. At that time verified exhibits and affidavits were received and made a part of the record, together with the transcript of the record made before the Interstate Commerce Commission in the companion case. No persons appeared in opposition to the application and a copy of the transcript was mailed to the applicant on October 2, 1953. The record shows and we find that the maintenance of higher interstate rates would result in unjust prejudice and discrimination against interstate shippers and undue advantage and preferential treatment for intrastate shippers. Exhibit 3 cited typical examples. Increases were shown in wages since the last rate increase authorized. Other operating

costs, it was indicated, increased accordingly. The record further points out that the express shipments are not paying their fair share of the cost of passenger train operation, and because of the heavy passenger deficit, freight rates are increased about 7 per cent, which means that farmers and all other shippers pay 7 per cent additional freight charges in order to make up the passenger deficit. It was stated that the intrastate revenue in the state of South Dakota for the year ending June 30, 1953, was $75,545.27 and the additional revenue under the proposed increase in rates on the same traffic would amount to $11,873.39 for that same period.

This commission has since January, 1948, authorized seven increases in the Railway Express Agency, Incorporated, rates as shown below:

Report and Order	Docket
1- 9-48	2164
3-31-48	2164
11-21-50	2285
11-21-50	2302
1- 2-51	2302
3-20-52	2321
5-11-53	2354

The Interstate Commerce Commission, in their decision in the Ex Parte 185 increase, decided July 20, 1953, stated:

"The basis approved herein will give the agency and the railroads a reasonable opportunity to recoup their out-of-pocket costs from this service, and, in addition, obtain therefrom a reasonable contribution to their indirect costs and return on investment, will enable them to render adequate service to more shippers and receivers, treating them all alike for a given haul, in so far as the increases are concerned, avoid an unjust burden on the railroads' freight operations, and enhance the morale of petitioners' employees by encouraging the maintenance and possible expansion rather than a contraction of its present operations.

"Certainly such a basis is worthy of a trial in the public interest before reconciling ourselves to a shrinkage in the express operations practically to the level of 1951, when the express and passenger train deficits were the largest in history. The choice is between a drastic increase in rates and charges which will jeopardize all the progress the agency has made in recent months or a moderate increase which will give reasonable assurance that progress will be continued. The quality of petitioner's service has considerably improved since we last looked into the matter, but there is still much to be done, and it will be expected to continue its efforts in that regard in connection with the increases approved herein."

The Ex Parte 185 increases have become effective on intrastate traffic in twenty-six states and will become effective in one additional state in November. These states include Iowa, Wisconsin, and Wyoming. The rates were published on North Dakota intrastate effective September 8th, but were suspended for ninety days until December 7, 1953, by the North Dakota commission.

This commission will authorize the filing and publication of tariffs reflecting the same increases on South Dakota intrastate traffic as was authorized by the Interstate Commerce Commission on interstate traffic, with the understanding that the increases herein authorized are permissive and not mandatory ones, and are subject

to complaint and further hearing if meritorious reasons are advanced by interested shippers. In authorizing increased rates to cover the Express Agency's larger share of the transportation costs, this commission hopes that freight rates might, ultimately, be reduced.

Let an order be issued accordingly.

LOUISIANA PUBLIC SERVICE COMMISSION

Ex Parte LaPlace Gas & Fuel Company, Inc.

No. 6363, Order No. 6352
September 16, 1953

APPLICATION *for authority to increase natural gas rates to cover increases in wholesale rates; denied.*

Expenses, § 96 — Officers' salaries — Future salaries.

1. Officers' salaries that are not actually accrued or paid and reflected as such on a utility's books are not deductible expenses for rate-making purposes, p. 128.

Expenses, § 73 — Replacement costs — Speculative increases.

2. Speculative higher future replacement costs of retired property are not deductible expenses for rate-making purposes, p. 128.

Return, § 101 — Natural gas company.

3. A natural gas company was denied a rate increase to cover a possible increase in the cost of its natural gas supply where, after the increase in the wholesale rate, existing rates would yield an annual return of approximately 6 per cent, p. 128.

By the COMMISSION: In this proceeding, LaPlace Gas and Fuel Company, Inc., seeks the authority of this commission to increase its rates for natural gas in the amount of 4 cents per thousand cubic feet in the event that this commission grants authority to United Gas Pipe Line Company to increase its charges by a like amount for gas sold to the applicant herein for resale.

LaPlace Gas and Fuel Company, Inc., is a corporation engaged in the distribution and sale of natural gas to consumers in the town of LaPlace, Louisiana, and as such is a public utility subject to the jurisdiction of this commission.

This matter was heard at a regular session of the commission held at Baton Rouge, Louisiana on September 10, 1953.

The applicant presented no documentary evidence, but based its case

on the findings of the commission's accounting staff. A verbal plea was made, however, by the company's witness A. J. Brady who asked the commission to take into consideration the nominal salaries that are paid to the officers of the company. He also asked that the commission recognize the higher replacement cost of plant items.

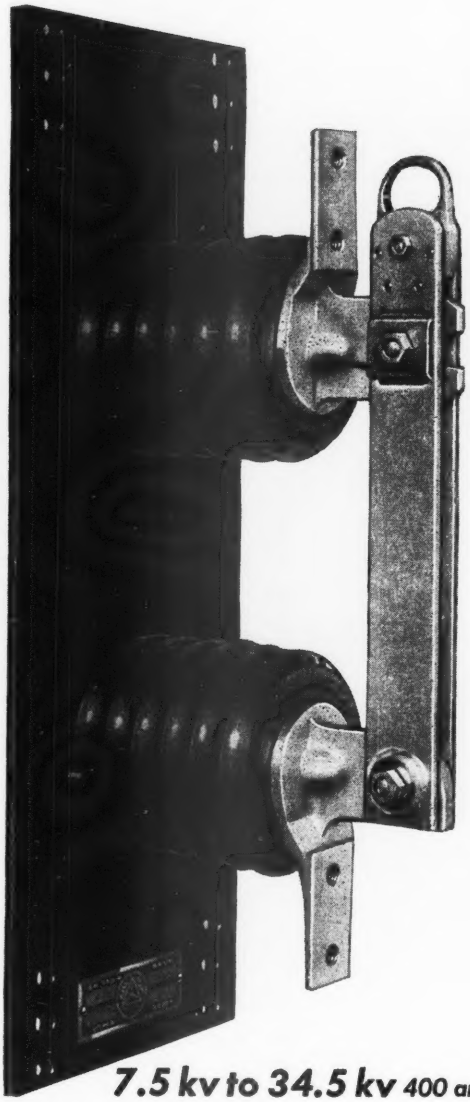
The commission staff presented an exhibit showing the results of operations for the calendar year 1953 which included estimated revenues and expenses for the last six months of that year. This exhibit indicated that at the present cost of gas to the applicant, the net operating revenues are considerably in excess of 6 per cent on the net rate base. The exhibit also shows what the results would be had the purchased gas been priced at the rate proposed by United Gas Pipe Line Company in Docket No. 6313 (Sept. 16, 1953), namely, 17 cents per Mcf. This indicated that the net return would have been 5.97 per cent or less than $100 under a return of 6 per cent. And inasmuch as the last six months of the test year were estimated, it is quite likely that this slight deficiency will disappear in the actual experience.

[1–3] After having considered the foregoing facts, it is the opinion of this commission and the commission finds that:

(1) Expenses that are not actually incurred by a utility should not be recognized as deductible expenses for rate-making purposes. This applies not only to salaries of officers that are not actually accrued and/or paid and reflected as such on the books, but also to speculative higher future replacement costs of retired property.

(2) The company will earn a return of approximately 6 per cent per annum on the basis of the present level of earnings after taking into consideration an additional cost of purchased gas at 4 cents per Mcf. It is accordingly

Ordered, that the petition of LaPlace Gas and Fuel Company, Inc., for an increase in rates for natural gas in LaPlace, Louisiana, contingent upon an increase of 4 cents per Mcf for gas sold by United Gas Pipe Line Company to the applicant herein be and it hereby is denied.



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Industrial Progress

Georgia Power to Spend $34,000,000 in 1954

HE Georgia Power Company will vest more than $34,000,000 in new enerating, transmission and distribuon facilities in 1954, Harllee Branch, r., president, announced recently.

Of the $34,000,000, nearly $13,-00,000 will be spent on power plants. Iost of this amount will go towards e completion of the first two 100,000 ilowatt steam-electric generating nits at Plant Hammond on the Coosa iver near Rome and for further work n a third unit of the same size.

A part of the money appropriated or generating facilities will be spent n engineering for two additional ydroelectric units of 5,000 kilowatts ach to be installed at the company's oat Rock plant on the Chattahoochee iver above Columbus. The two units ill increase the capacity of this plant o 31,000 kilowatts.

More than $6,000,000 will be inested by the company in new transission lines and substations to rengthen and expand the company's ervice.

Major transmission substations to e constructed by the company during 954 will be located at Toccoa, Stevens reek near Augusta, Sandersville, lbany and LaGrange.

Nearly $14,000,000 has been alocated by the company for the expanion and improvement of the electrical istribution system. This includes aditions and improvements to the facilies now in use as well as lines and ubstations to serve new customers.

Inaugurate AGA Commercial Water Heater Sales Campaign

HOT water for dishwashing and anitary purposes in large-volume eeding establishments will be pronoted in the 1954 Commercial Water Heater Sales Campaign sponsored rom February through April by the Industrial and Commercial Gas Section of the American Gas Association.

"Plenty of Hot Water Pays—All Ways!" is the theme of this drive, which is the first of its kind sponsored through the Commercial Cooking Bureau of AGA. Thus far more than 30 gas utility members in 20 states and Canada are participating. They are concentrating their sales efforts on all restaurants and the feeding operations in hotels, institutions, factories and other business organizations which utilize hot water.

Improvement and modernization of dishwashing facilities in many hotels and restaurants through this campaign will be sought by coördinating sales efforts of gas companies, gas water heater manufacturers and all dealers to place economical and efficient gas water heating equipment where it is most needed.

Further information and promotional material are available from the Association, 420 Lexington avenue, New York 17, N. Y.

Westinghouse to Build Two Most Powerful Transformers

THE world's two most powerful transformers, each capable of handling the electric power needed by a city the size of Baltimore, Md., will be built by the Westinghouse Electric Corporation for The Detroit Edison Company, it was announced recently.

Frank L. Snyder, vice president in charge of the Westinghouse Transformer Division in Sharon, Pa., said that the two units will be rated at 315,-000 kva each, the equivalent of 420,-000 horsepower. They will be installed at The Detroit Edison's new River Rouge Power Plant. Each transformer will boost the power output of a generator from 17,300 volts to 129,-000 volts so that it can be distributed economically to distant points.

The most powerful transformers previously built were four 190,000-kva units which Westinghouse built for The Detroit Edison's St. Clair Station, the first two of which were placed in operation during 1953.

Texas Gas Plans Pipeline, Compressor Additions

TEXAS Gas Transmission Corporation, of Owensboro, Kentucky, has filed an application with the Federal Power Commission asking approval of plans for a $1,596,000 construction program in Louisiana.

The application seeks authority for constructing 24 miles of 16-inch natural gas transmission pipeline in the South Louisiana gas fields, installation of an additional 2,000 horsepower compressor unit at the company's Bastrop, Louisiana, compressor station, and erection of a purchase meter station in South Louisiana.

Booklet Shows Latest Cottrell Precipitator Advancements

OPERATORS contemplating the installation of equipment for recovering dusts, fly ash, fumes, mists, fogs or other similar suspensions in stack or process gases will find much valuable data in the new 40 page booklet recently issued by Western Precipitation Corporation.

This new booklet summarizes the latest advancements in Cottrell Precipitator equipment, outlines various types of electrode designs, shell constructions, electronic and mechanical

(*Continued on page* 28)

INDUSTRIAL PROGRESS
(Continued)

rectifier systems, and also gives hel ful information on combination m chanical-electrical recovery syste (CMP Units) which have recent brought new savings to recovery a plications.

A free copy of this booklet can b obtained by writing to the head offic of Western Precipitation Corporatio 1016 West Ninth street, Los Angele California.

Utah Power Plans to Spend $25,000,000 in 1954

UTAH Power & Light Company an its subsidiary, Western Colorad Power Company, will spend more tha $25,000,000 for construction and ex pansion in 1954.

The budget for the work runs nea ly $11,000,000 over the $14,500,00 spent for new construction in 195 Company officials said $23,500,00 would be spent this year by Uta Power & Light in Utah and Souther Idaho, and another $1,700,000 will b spent on Western Colorado Powe

Of the amount budgeted for Uta Power, $15,600,000 will be spent o new power production facilities. Som of these funds will go for completio of the 66,000-kilowatt steam electri plant at Castlegate, Carbon count Utah.

C&P Tel. Plans $565,970 Expansion

THE Chesapeake and Potomac Tele phone Company plans to spend a tota of $565,970 for improvement and ex pansion of telephone service in Vir ginia, including communities in th Richmond area.

The announcement was made re cently by J. Rhodes Mitchell, vice president of the company.

Multi-Purpose Electrical Cable Announced by Rome Cable

A NEW low-cost, versatile cable fo branch and feeder circuits on farms in industry, and in homes, is an nounced by the Rome Cable Corpora tion, of Rome, New York.

This new cable, known as Rom FlexAll, is designed especially fo underground feeder service, and fo installation in locations where damp ness or corrosive action are en countered. It is available in single two, and three conductor construction

Additional information on the new Rome FlexAll cable may be obtaine by writing to the Rome Cable Cor poration, Rome, New York. Ask fo Bulletin RF-1.

(Continued on page 30)

...Your space requirements for serving these customers and maintaining your property must keep pace with the increase in the generating capacity of your system.

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First they make a space requirement survey based on present operations. This information is projected to predict space requirements for service and maintenance in terms of future growth. Knowing these facts will help make your plans more successful and maintain your service standards as your business increases. Initial consultation with Ebasco is without cost or obligation. Write for "The Inside Story of Outside Help," describing the Ebasco services available to you. Dept. W, Ebasco Services Incorporated, Two Rector Street, New York 6, N. Y.

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Arizona Public Service Plans Record Expansion This Year

ARIZONA Public Service Company plans a $25,500,000 expansion program this year, the largest it has ever undertaken.

The company operates in 10 of the state's 14 counties and had 250,000 electricity, gas, and water customers in 1953. An expenditure of $20,800,000 is earmarked for the company's electrical system, $2,100,000 for gas facilities and $1,500,000 for water properties.

The largest single item is $11,400,000 to continue construction of the firm's Saguaro power plant near Red Rock, Arizona.

The company plans to spend $6,500,000 on improving the electrical distribution system in its 37,000-square mile area.

Henry B. Sargent, president, said the company expects to add 16,000 new customers in 1954.

Cleveland Trencher Announces Model 190 Heavy-duty Backfiller

ANNOUNCEMENT of a one-man-operated, fast-moving, big-capacity backfiller for pipelines and heavy construction work has been made by The Cleveland Trencher Company, Cleveland, Ohio.

According to the announcement, the new machine, the Cleveland Model 190, is a fast, highly efficient backfiller under all types of project conditions and is especially effective under the more rugged and difficult conditions—in mud, sand and rocky soil, in swamps and hilly terrain. Employing a big 7 ft. backfill board, the machine backfills as it travels, providing continuous operation under one-man control.

The 190 utilizes the same basic, job-proved design pioneered by The Cleveland Trencher Company in smaller sizes prior to World War II.

New Quick Break Interrupter Device Developed by Delta-Star

"A QUICK Break Interrupter Switch," a new booklet just released by Delta-Star Electric Division, describes the company's new Type "QB" device in various positions of operation on different types of air switches. Enlarged views from a movie film, taken at 190 frames per second during a field test, clearly illustrate the nature of the arc interruptions. Also shown are the results of an ice test with the switch closed and opened.

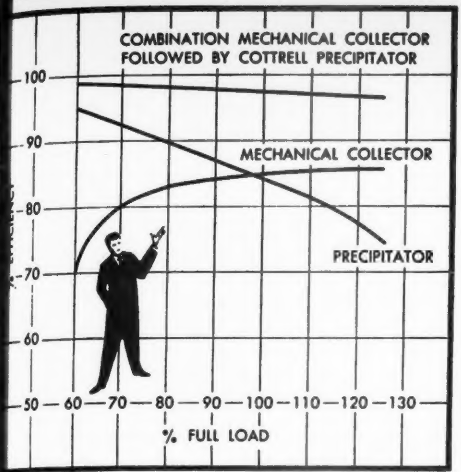
The booklet is concise and complete from Introduction to Summary, including a table of tentative interrupting ratings for the Type "QB" air switch attachments.

For copies of the booklet write: Delta-Star Electric Division, H. K. Porter Company, Inc., 2437 Fulton Street, Chicago 12, Illinois, Att: Literature Department.

Southwestern Pub. Serv. to Spend $23,400,000 in 1954

SOUTHWESTERN Public Service Company, Amarillo, Texas, expects to spend about $23,400,000 during the fiscal year ending on August 31.

Included in the budget is $14,400,000 for new electric generating facilities and $8,600,000 for transmission and distribution facilities.



Advantages of the Western Precipitation CMP Unit

for recovering solids from stack gases in public utility operations

The control and recovery of fly ash from stack gases has always been a troublesome problem in public utility operations. With the development of the CMP unit by Western Precipitation Corporation, new economy and efficiency in the solution of fly ash problems are now possible.

Almost a half century ago Western Precipitation ioneered the first commercial application of the ow-famous Cottrell Electrical Precipitator to reover suspensions *electrically*, and this equipment still unsurpassed in its field.

Subsequently, to provide efficient fly ash recovery or low cost installations, Western Precipitation also ioneered the first small tube *mechanical* recovery nit — the Multiclone Collector — and this unit romptly gained widespread recognition for the ew efficiencies it brought to mechanical recovery rocesses.

Combination Multiclone-Precipitator Unit. From hese years of experience gained in both Cottrell nd Multiclone installations, Western Precipitation ecently offered another new development — the MP Unit — a unit that combines in one compact stallation many of the best features of both elecical and mechanical recovery methods.

In a typical CMP Unit, the stack gases first pass hrough a Multiclone section where the heavier aterials are removed *mechanically*.

The partially-cleaned gases then pass through a ottrell section where the very small particles are moved *electrically*.

This arrangement offers several advantages imortant to public utilities. Removing the heavier articles by the Multiclone process permits the ulk of the recovery operation to be performed with relatively low-cost equipment. Using a Cottrell for the final clean-up insures unusually high recovery efficiency — approaching theoretically perfect, if desired. Thus, the CMP combines high recovery efficiency with low total cost . . . and, as shown in the chart above, has the further advantage that the efficiency curve of the Multiclone portion complements that of the Cottrell portion — *therefore the overall CMP efficiency remains practically uniform at all boiler loads.*

At low boiler loads the recovery efficiency of the Cottrell is highest, while that of the Multiclone reaches its maximum at high boiler loads. But, by combining the two types of equipment into a *single* CMP unit, the efficiency curve remains almost flat whether the boiler load is low or high.

With CMP equipment, even small utility companies can now afford adequate fly ash recovery. However, it is important to remember that full benefit of the CMP principle can be obtained only by a proper balance between the mechanical and electrical sections to fit the individual requirements of *each individual* installation. And no organization is better equipped to provide this critical "know-how" than the organization that provides integrated responsibility for Cottrell, Multiclone and CMP methods . . . *the Western Precipitation Corporation.*

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• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction.

(Professional Directory Continued on Next Page)

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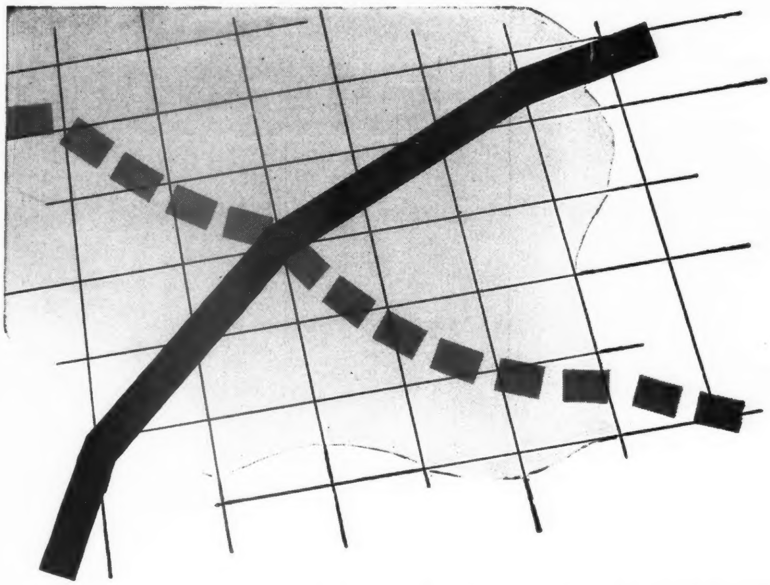

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